

## NOTICES OF PROPOSED RULEMAKING

Unless exempted by A.R.S. § 41-1005, each agency shall begin the rulemaking process by first submitting to the Secretary of State's Office a Notice of Rulemaking Docket Opening followed by a Notice of Proposed Rulemaking that contains the preamble and the full text of the rules. The Secretary of State's Office publishes each Notice in the next available issue of the *Register* according to the schedule of deadlines for *Register* publication. Under the Administrative Procedure Act (A.R.S. § 41-1001 et seq.), an agency must allow at least 30 days to elapse after the publication of the Notice of Proposed Rulemaking in the *Register* before beginning any proceedings for making, amending, or repealing any rule. (A.R.S. §§ 41-1013 and 41-1022)

### NOTICE OF PROPOSED RULEMAKING

#### TITLE 18. ENVIRONMENTAL QUALITY

#### CHAPTER 2. DEPARTMENT OF ENVIRONMENTAL QUALITY

#### AIR POLLUTION CONTROL

*Editor's Note: The following Notice of Proposed Rulemaking was reviewed per Executive Order 2011-05 as issued by Governor Brewer. (See the text of the executive order on page 2289.) The Governor's Office authorized the notice to proceed through the rulemaking process on April 1, 2009.*

[R11-165]

#### PREAMBLE

| <u>1. Article, Part, or Section Affected (as applicable)</u> | <u>Rulemaking Action</u> |
|--|--------------------------|
| R18-2-101  | Amend                    |
| R18-2-102  | Amend                    |
| R18-2-201  | Amend                    |
| R18-2-202  | Amend                    |
| R18-2-203  | Amend                    |
| R18-2-205  | Amend                    |
| R18-2-206  | Amend                    |
| R18-2-210  | Amend                    |
| R18-2-218  | Amend                    |
| R18-2-219  | Repeal                   |
| R18-2-301  | Amend                    |
| R18-2-302  | Amend                    |
| R18-2-302.01   | New Section              |
| R18-2-303  | Amend                    |
| R18-2-304  | Amend                    |
| R18-2-310.01   | Amend                    |
| R18-2-317  | Amend                    |
| R18-2-317.01   | Amend                    |
| R18-2-317.02   | Amend                    |
| R18-2-319  | Amend                    |
| R18-2-320  | Amend                    |
| R18-2-321  | Amend                    |
| R18-2-324  | Amend                    |
| R18-2-327  | Amend                    |
| R18-2-330  | Amend                    |
| R18-2-334  | New Section              |
| R18-2-401  | Amend                    |
| R18-2-402  | Amend                    |
| R18-2-403  | Amend                    |
| R18-2-404  | Amend                    |
| R18-2-405  | Amend                    |
| R18-2-406  | Amend                    |
| R18-2-407  | Amend                    |
| R18-2-411  | Repeal                   |
| R18-2-412  | New Section              |
| R18-2-502  | Amend                    |

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|           |             |
|-----------|-------------|
| R18-2-503 | Amend       |
| R18-2-505 | Amend       |
| R18-2-512 | New Section |
| R18-2-513 | New Section |
| R18-2-614 | Amend       |
| R18-2-701 | Amend       |
| R18-2-719 | Amend       |

**2. Citations to the agency's statutory rulemaking authority to include the authorizing statute (general) and the implementing statute (specific):**

Authorizing statutes: A.R.S. §§ 49-104(A)(1) and (A)(10); 49-425(A)

Implementing statutes: A.R.S. § 49-426

**3. Citations to all related notices published in the Register as specified in R1-1-409(A) that pertain to the record of the proposed rule:**

Notice of Rulemaking Docket Opening: 14 A.A.R. 1447, April 25, 2008 (expired)

Notice of Rulemaking Docket Opening: 17 A.A.R. 2280, November 4, 2011 (*in this issue*)

**4. The agency's contact person who can answer questions about the rulemaking:**

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**5. An agency's justification and reason why a rule should be made, amended, repealed or renumbered, to include an explanation about the rulemaking:**

**Summary.**

The purpose of this rulemaking is to update Arizona's new source review (NSR) rules in order to secure their approval as part of the state implementation plan (SIP) under the federal Clean Air Act.

The amendments included in the rulemaking consist of extensive revisions to the state's major NSR program as well as new NSR requirements for minor sources and minor modifications designed protect the national ambient air quality standards (NAAQS). As part of the minor NSR requirements, the amendments add a new registration program for sources with emissions below the current permitting thresholds. In addition to these unpermitted sources, some sources that require a permit under current rules will be eligible for the less rigorous registration program.

There is currently a significant discrepancy, known as the "SIP gap," between the NSR rules as set forth in the Arizona Administrative Code and the rules that have been approved by the federal Environmental Protection Agency (EPA) into the SIP. Once approved, the amended rules will eliminate the SIP gap.

This rulemaking also includes conforming and technical changes to rules related to NSR, such as requirements for emissions testing and the general permit program.

**Background.**

**Clean Air Act NSR Requirements**

Section 110(a)(2)(C) of the federal Clean Air Act (the "Act" or "CAA") requires SIPs to:

include a program to provide for the ... regulation of the modification and construction of any stationary source within the areas covered by the plan as necessary to assure that national ambient air quality standards are achieved, including a permit program as required in parts C and D [of this title]...

Because regulations adopted under this section apply to newly constructed and modified, as opposed to existing, sources they are commonly referred to as "new source review" programs.

Part C of Title I of the Act establishes the NSR requirements for major sources that are constructed or modified in areas that have attained the NAAQS for one or more criteria pollutants (ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, PM<sub>10</sub>, PM<sub>2.5</sub> and lead). Sources that belong to the list of categories set forth in section 169(1) of the Act are major if they emit or have the potential to emit 100 or more tons per year or more of a regulated air pollutant.

(Sources belonging to these categories are known as “categorical sources” in ADEQ’s rules.) Other sources are subject to a 250 tons-per-year threshold.

The program required by Part C is known as “Prevention of Significant Deterioration” (PSD), because its purpose is to prevent air quality in attainment areas from deteriorating to the level of the NAAQS. See CAA § 160. PSD therefore establishes or requires EPA to establish maximum allowable increases, known as “increments,” over existing concentrations of criteria pollutants and requires permit applicants subject to PSD to demonstrate that a new source or modification’s emissions will not result in a violation of the increments or the NAAQS. PSD also requires the installation of the best available control technology (BACT).

Part D of Title I establishes NSR requirements for major sources and modifications in nonattainment areas. Under Subpart 1 of Part D, a major source is defined as any source that emits or has the potential to emit 100 tons per year or more of a pollutant for which an area has been designated nonattainment. Subpart 2 of Part D establishes lower major source thresholds for certain ozone, carbon monoxide and PM<sub>10</sub> nonattainment areas.

Permit applicants subject to Part D must demonstrate that a major source or modification will comply with the lowest achievable emission rate (LAER) and that reductions in emissions from the same source or other sources will offset any emissions increases from the source or modification.

In addition to requiring compliance with the specific major NSR requirements of Parts C and D, section 110(a)(2)(C) requires “regulation of the modification and construction of *any* stationary source within the areas covered by the plan *as necessary to assure that national ambient air quality standards are achieved.*” (Emphasis added.) EPA refers to 110(a)(2)(C) programs that apply to non-major sources and to minor modifications to major sources as “minor NSR.” *76 Fed. Reg.* 38748, 38752 (July 1, 2011).

**EPA NSR Regulations**

EPA has promulgated regulations establishing the elements a state program must contain to satisfy section 110(a)(2)(C) at 40 CFR 51, Subpart I (§§ 51.160-51.166).

Sections 51.165 and 166 establish the requirements for nonattainment NSR and PSD programs, respectively. These rules are highly detailed and prescriptive. States seeking approval of major NSR programs must either strictly conform to these rules or demonstrate that any deviations are at least as stringent as EPA’s program.

Both § 51.165 and 51.166 limit the applicability of major NSR to the construction of a new major source or a “major modification” to a major source. A major modification is defined as physical or operational change that will result in both a significant increase and a significant *net* increase in the emissions of a regulated NSR pollutant.

For criteria pollutants and their precursors, “significant” is defined as:

|                            |                         |
|----------------------------|-------------------------|
| Carbon monoxide            | 100 tons per year (tpy) |
| Nitrogen oxides            | 40 tpy                  |
| Sulfur dioxide             | 40 tpy                  |
| Volatile organic compounds | 40 tpy                  |
| Lead                       | 0.6 tpy                 |
| PM <sub>10</sub>           | 15 tpy                  |
| PM <sub>2.5</sub>          | 10 tpy                  |

As EPA has noted, the “Federal regulations for minor source programs [at 40 CFR 51.160-164] are considerably less detailed than the requirements for major sources.” *71 Fed. Reg.* 48696, 48700 (Aug. 21, 2006). Under the minor NSR regulations, a state program must contain “legally enforceable procedures” to prevent the construction or modification of a minor source if it will “result in a violation of applicable portions of the control strategy” for compliance with the NAAQS or “interfere with the attainment or maintenance of a” NAAQS. 40 CFR 51.160.

A minor NSR program need not apply to all new and modified sources, but it must “identify types and sizes of facilities, buildings, structures, or installations which will be subject to” minor NSR and “discuss the basis for determining which facilities will be subject to review.” 40 CFR 51.161(e). As EPA has noted:

Applicability thresholds are proper in [a minor NSR program] provided that the sources and modifications with emissions below the thresholds are inconsequential to attainment and maintenance of the NAAQS.

*71 Fed. Reg.* 48701.

The program must allow a minimum 30-day period to comment on the applicant’s minor NSR application and the agency’s proposed decision. 40 CFR 51.161.

### Arizona's NSR SIP and Current NSR Rules

Before ADEQ's creation in 1987, the Arizona Department of Health Services (ADHS) was responsible for administering Arizona's air quality program and adopted the state's original major and minor NSR rules. Arizona implemented NSR through an installation permit program, which required owners and operators to obtain an installation permit before beginning construction of a new source or a modification to an existing source. See Former A.A.C. R9-3-301 to -305, which, along with the other ADHS rules cited in this discussion, can be found at EPA Region 9's web site at:

<http://yosemite.epa.gov/R9/r9sips.nsf/Agency?ReadForm&count=500&state=Arizona&cat=Arizona+Department+of+Environmental+Quality+Agency-Wide+Provisions>.

A separate operating permit was required before the owner or operator was allowed to begin operation of the source or modification. See R9-3-306.

In 1983, EPA approved the ADHS NSR provisions into the SIP. 48 *Fed. Reg.* 19879 (May 3, 1983).

### The SIP Gap

EPA last approved revisions to the Arizona NSR SIP in 1988. See 53 *Fed. Reg.* 30220 (Aug. 10, 1988). Since then, the state has transferred authority over the program to ADEQ and has made substantial revisions to the program.

Most significantly, in 1992 through 1993, the state adopted legislation, followed by conforming rule amendments, to move from the old installation and operating permit program to a "unitary" program that authorizes both construction and operation in a single permit. NSR requirements for new sources are now enforced as part of the issuance of a single permit that also ensures compliance with all other applicable requirements of state and federal air quality laws. For major sources, these permits are designed to comply with Title V of the Act, as well as Parts C and D of Title I. Major modifications subject to major NSR now require a significant revision to the permit for an existing source, rather than a new installation permit. Other modifications that formerly required an installation permit may now proceed under either a significant or minor permit revision.

In addition to adopting the unitary permit program, ADEQ also has updated its NSR rules to incorporate:

- the PM<sub>10</sub> and PM<sub>2.5</sub> NAAQS,
- the PM<sub>10</sub> increments,
- the nitrogen dioxide increments,
- the 1997 eight-hour ozone NAAQS,
- the "WEPCO" rule redefining the method for determining whether a modification to an electric generating unit is major, and
- various technical amendments.

None of these changes is included in the approved NSR SIP for the state.

Under federal law ADEQ remains obligated to continue enforcing the old NSR program until EPA approves the new one. Fortunately, the new program is in most cases more stringent than the old, so that compliance with current rules is largely sufficient to assure compliance with the approved NSR SIP. There are a few instances, however, in which the old rules require review procedures that go beyond the current program. ADEQ has had to issue guidance explaining that in these cases the Department will apply the approved SIP, rather than the rules currently published in the state's administrative code.

It would obviously be preferable for the requirements of the SIP and the current rules to match. The Department is therefore seeking with these rule amendments to eliminate the SIP gap for the permit program.

### EPA Amendments to Major NSR

ADEQ has attempted to secure EPA approval of prior versions of its NSR rules, but so far without success. Since ADEQ last updated its NSR rules, EPA has adopted substantial revisions to the major NSR program, making additional amendments necessary before approval EPA can be secured.

Most significantly, on December 31, 2002, EPA promulgated comprehensive amendments, known as "NSR reform," to the regulatory methods for determining whether a major modification has occurred. 67 *Fed. Reg.* 80186. On June 24, 2005, the United States Court of Appeals for the D.C. Circuit vacated some of the rule changes, including exemptions for modifications to certain "clean units" and modifications that qualify as "pollution control projects." *New York v. EPA*, 413 F.3d 3 (D.C. Cir 2005). The remaining rules, which remain in effect, consist of changes to the method for calculating the emissions increase from a modification to an existing emissions unit and provisions for "plantwide applicability limits" (PALs).

The determination of whether a modification to an existing unit will result in a significant emissions increase entails a comparison between "baseline" (i.e. existing) emissions and future emissions after the modification is complete. (The installation of a new unit is generally deemed to result in an increase equal to the unit's potential to emit.) NSR reform established a new method for determining baseline emissions and a new option for determining future emissions for modifications to existing units.

Under pre-NSR Reform rules, baseline emissions were generally calculated using the actual emissions for the two-year period immediately preceding the proposed change. 67 Fed. Reg. 80188. As EPA has noted, regulated industries complained that this method provided only “limited ability to consider the operational fluctuations associated with normal business cycles.” 67 Fed. Reg. 80191. The NSR Reform amendments therefore allow the use of any consecutive 24-month period during the 10-year period prior to the change to establish baseline actual emissions. (A five-year period is used for EGUs.)

Before NSR Reform, an existing unit’s future, post-modification emissions were normally deemed to equal the unit’s potential to emit (PTE). The definition of PTE assumes that a unit “will operate at its full capacity year round,” unless the source’s permit includes “enforceable restrictions on the unit’s operation.” This was problematic, because “using PTE as a measure of post-change emissions automatically attributes all possible emissions increases to the change.” In many cases, however, the unit might “function essentially as it did before the change” and produce no increase or a less-than-significant increase in actual emissions. 67 Fed. Reg. 80193-94.

After NSR Reform, a source’s owner or operator may now elect to use an existing unit’s “projected actual emissions,” rather than its PTE, to determine future emissions. Unlike PTE, a unit’s projected actual emissions take into account historical operational data and exclude emissions that could have been accommodated before the modification.

According to EPA, this new test for calculating the emissions increase from a modification to an existing unit, known as the “actual-to-projected-actual” test, will produce benefits for regulated industries, the environment and state and local agencies:

By allowing you [i.e., regulated entities] to use today’s new version of the actual-to-projected-actual applicability test to evaluate modified existing emissions units, we expect that fewer projects will trigger the major NSR permitting requirements. Nonetheless, we believe that the environment will not be adversely affected by these changes and in some respects will benefit from these changes. The new test will remove disincentives that discourage sources from making the types of changes that improve operating efficiency, implement pollution prevention projects, and result in other environmentally beneficial changes. Moreover, the end result is that state and local reviewing authorities can appropriately focus their limited resources on those activities that could cause real and significant increases in pollution.

67 Fed. Reg. 80192.

The NSR Reform rule also provides that if there is a “reasonable possibility” that modifications to existing emissions units will produce a significant emissions increase of a regulated NSR pollutant, and the owner or operator elects to use the actual-to-projected-actual test, the modifications will be subject to monitoring, recordkeeping and reporting obligations.

The initial NSR Reform rule did not define “reasonable possibility.” The court in *New York v. EPA* held that without a definition or other clarification, the rule failed to provide regulated entities or agencies adequate notice of when these obligations are triggered. In response, EPA issued amendments to its major NSR rules defining the term. 72 Fed. Reg. 72607 (Dec. 12, 2007). Although EPA subsequently granted a petition to reconsider the definition, it did not stay the provision, which therefore remains in effect.

The other major element of NSR Reform is the PAL, which allows major sources to avoid major NSR by accepting and complying with a source-wide cap on emissions. PALs are set for each regulated NSR pollutant at a level equal to baseline actual emissions plus the significant level for the pollutant. Baseline actual emissions are calculated in the same way as described above for calculating emission increases from modifications to existing emission units. A source may generally make any changes it wants without triggering major NSR, so long as plantwide emissions after the change remain below the PAL. PALs last for ten years and are renewable.

EPA believes that regulated entities “will benefit from the PAL option because [they] will have increased operational flexibility and regulatory certainty, a simpler NSR applicability approach, and fewer administrative burdens.” 67 Fed. Reg. 80206. Based on a review of six flexible permit pilot projects, EPA concluded that the environment would also benefit. According to the agency, “PALs will over time tend to shift growth in emissions to cleaner units, because the growth will have to be accommodated under the PAL cap.” 67 Fed. Reg. 80207.

Since the last ADEQ update, EPA also has made numerous revisions to the NAAQS. The NAAQS are not technically part of EPA’s NSR regulations, but in order to be approvable, a state NSR program must allow for enforcement of the current version of these standards. See, e.g., 40 CFR 51.166(k)(1). Since state law precludes ADEQ from incorporating future amendments to federal law, see *State v. Williams*, 119 Ariz. 595, 583 P.2d 251, 254-55 (1978); A.A.C. R18-1-114(B), the Department’s practice has been to adopt its own version of the NAAQS into Chapter 2, Article 2 and then to refer to those standards in its major NSR rules. See, e.g., A.A.C. R18-2-406(A)(5)(a). The state must therefore update Article 2 to reflect the revised NAAQS.

Finally, EPA has made numerous other revisions that must be included in the Arizona program, such as the adoption of PM<sub>2.5</sub> increments and significant impact levels and significant monitoring concentrations for PM<sub>2.5</sub>.

### **Stakeholder Process**

These proposed revisions to the state NSR program are the product of an extensive stakeholder review process that lasted approximately 2 1/2 years.

The process included an initial series of public stakeholder meetings in 2008, during which ADEQ presented and received comments on concept papers and then proposed rule language for both minor and major NSR. ADEQ secured the services of a consultant, RTP Environmental Associates, Inc., to assist it with this stage of the stakeholder process.

When these meetings concluded, it was clear that there was still considerable disagreement about the appropriate scope and elements of the minor NSR program. ADEQ therefore conducted, in 2009, a series of “mini-stakeholder” meetings with a limited number of designated representatives from the regulated community, environmental organizations and the counties, to attempt to resolve these differences. As a result of these meetings, ADEQ made numerous changes to the minor NSR proposal, which the Department believes will reduce the burden the program imposes on the regulated community while still meeting the requirements of section 110(a)(2)(C) of the Clean Air Act.

Finally, ADEQ presented these changes, first in the form of concept papers and then in rule language, at another series of public stakeholder meetings conducted in 2010. Comments received at these meetings resulted in additional streamlining changes to the proposal.

### **Revisions to State Major NSR Program**

HB 2617, which became law on July 29, 2010, added the following restriction to ADEQ’s powers and duties as set forth in A.R.S. § 49-104(A):

17. Unless specifically authorized by the legislature, [the department shall] ensure that state laws, rules, standards, permits, variances and orders are adopted and construed to be consistent with and no more stringent than the *corresponding federal law that addresses the same subject matter*. This provision shall not be construed to adversely affect standards adopted by an Indian tribe under federal law.

Laws 2010, Ch. 309, § 14.

EPA’s major NSR regulations are quite detailed and prescriptive. They establish a specific body of “corresponding federal law that addresses the same subject matter” as the proposed major NSR amendments. Accordingly, ADEQ believes that HB 2617 imposes a duty on the Department to ensure that the major NSR amendments are consistent with and no more stringent than the corresponding EPA regulations.

Consistent with that obligation, ADEQ is proposing to adopt major NSR amendments that are substantially identical to the EPA changes described above. Specifically, ADEQ has eliminated a provision (R18-2-401(9)(c)-(d)) from the existing definition of major source that was more stringent than the corresponding federal definition and has dropped proposals presented to the stakeholders to increase the stringency of some of the NSR Reform provisions.

### **Arizona Minor NSR Requirements**

The rule amendments relating to minor NSR included in this proposal are designed to address two primary deficiencies: (1) applicability thresholds that EPA Region 9 has determined to be unapprovable and (2) lack of explicit procedures designed “to assure that national ambient air quality standards are achieved,” as required by CAA § 110(a)(2)(C). ADEQ’s current minor source permitting rules require the inclusion of “[e]nforceable emission limitations and standards, including operational requirements and limitations that ensure compliance with all applicable requirements.” A.A.C. R18-2-306(A)(1). They therefore satisfy the requirement in EPA’s minor NSR rules to assure that minor sources do not violate “applicable portions of the control strategy.”

Applying the restrictions imposed by HB 2617 to the minor NSR provisions of this rulemaking is more problematic than in the case of major NSR. As explained above, EPA’s minor NSR rules, in contrast to those governing major NSR, are extremely general. They afford the regulatory agency “a broad degree of discretion in developing a program to regulate new and modified minor stationary source construction activities...” 71 *Fed. Reg.* 48696, 48700 (Aug. 21, 2006). The generality and open-endedness of the requirements make it difficult to determine with any precision whether the proposal is more stringent than the corresponding federal law.

Since the beginning of the stakeholder process, however, ADEQ has taken a cautious approach and has attempted to develop a minor NSR program that would meet the minimum requirements necessary to secure approval under CAA § 110(a)(2)(C). ADEQ believes this approach is justifiable because the contribution of minor sources to ambient concentrations of criteria pollutants in areas under state jurisdiction appears to be minimal. (The new registration program, discussed below, will supply the Department with better data to evaluate the validity of this premise.)

### **Setting Applicability Thresholds**

Under current ADEQ rules, permits are required for sources with the potential to emit without controls, significant levels of regulated air pollutants, and significant permit revisions are required for modifications that increase a

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source's emissions of a regulated air pollutant by a significant amount. A.A.C. R18-2-302(B)(2)(a)(iii), R18-2-319(A)(7), R18-2-320(B)(3).

In a May 22, 1996, letter addressing the adequacy of ADEQ's permit program, EPA Region 9 stated that the agency did "not feel that the significance levels represent an acceptable threshold for applying the basic preconstruction requirements" of minor NSR and that "ADEQ should require preconstruction review and permitting for some subset of sources and modifications with potential emissions less than the significance levels." The agency suggested that "ADEQ could develop a source registration program for smaller facilities that would achieve the same environmental benefit as a traditional permitting program."

As part of its assessment of possible thresholds, ADEQ asked RTP to prepare a comparison of the source thresholds of minor NSR programs for neighboring states with air quality issues similar to the areas under ADEQ jurisdiction. (California was not included, because of the unique severity of the nonattainment problems in that state.) As the following summary of RTP's report shows, the minor NSR source thresholds for these states (given in tons per year) are, with the exception of New Mexico's, substantially lower than ADEQ's:

| <b>State</b>             | <b>PM<sub>10</sub></b> | <b>PM<sub>2.5</sub></b> | <b>NO<sub>x</sub></b> | <b>SO<sub>2</sub></b> | <b>CO</b> | <b>VOC</b> | <b>Lead</b> |
|--------------------------|------------------------|-------------------------|-----------------------|-----------------------|-----------|------------|-------------|
| Arizona                  | 15                     | 10*                     | 40                    | 40                    | 100       | 40         | 0.6         |
| Colorado (attainment)    | 5                      | 5                       | 10                    | 10                    | 10        | 5          | 0.1         |
| Colorado (nonattainment) | 1                      | 1                       | 5                     | 5                     | 5         | 2          | 0.1         |
| Nevada                   | 2                      |                         | 2                     | 2                     |           | 2          |             |
| Clark County Nevada      | 5                      |                         | 10                    | 25                    | 25        | 10         | 0.3         |
| New Mexico               | 25                     | 25                      | 25                    | 25                    | 25        | 25         | 25          |
| Utah                     | 5                      |                         | 5                     | 5                     | 5         | 5          |             |

\*EPA's significant level for PM<sub>2.5</sub>, which is not yet included in ADEQ's definition of significant but is being added by this rulemaking.

The thresholds adopted in EPA's minor NSR rules for Indian Country, which were proposed on August 21, 2006, 71 *Fed. Reg.* 48696, and promulgated on July 1, 2011, 76 *Fed. Reg.* 38748, provide another point of comparison. Under those rules, the minor NSR thresholds for both new sources and modifications are as follows:

| <b>Pollutant</b>  | <b>Threshold for nonattainment areas (TPY)</b> | <b>Threshold for attainment areas (TPY)</b> |
|-------------------|--|---|
| CO                | 5  | 10  |
| NO <sub>x</sub>   | 5  | 10  |
| SO <sub>2</sub>   | 5  | 10  |
| VOC               | 2  | 5   |
| PM <sub>10</sub>  | 1  | 5   |
| PM <sub>2.5</sub> | 0.6  | 3   |
| Lead              | 0.1  | 0.1   |

76 *Fed. Reg.* 38758. Again, these thresholds are substantially lower than ADEQ's current minor NSR thresholds. On the other hand, EPA acknowledged that the rule was "not intended to establish a new set of minimum criteria that a Tribe or a state would need to follow in developing its own minor source permitting program." Thus, the thresholds in the minor NSR program for Indian Country are instructive, but not binding.

To assess the impact of the proposed thresholds in the Indian Country rule, EPA conducted a source distribution analysis using data from the National Emissions Inventory. The analysis concluded that the percentage of sources that would be exempt under the proposal would be relatively large when compared to the percentage of exemption emissions. In other words, the proposed thresholds would be efficient in terms of emissions regulated per regulated source. According to EPA, the analysis provided excellent "evidence that sources with emissions below the proposed minor NSR thresholds will be inconsequential to attainment and maintenance of the NAAQS."

To develop thresholds for the state minor NSR program, ADEQ applied a similar approach to a local data set.

During the stakeholder process, ADEQ proposed two alternative scenarios for minor NSR thresholds:

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| <b>Pollutant</b> | <b>Scenario 1<br/>(1/2 Significant Level)</b> | <b>Scenario 2<br/>(1/4 to 1/2 Significant Level)</b> |
|------------------|---|--|
| CO               | 50  | 25   |
| NO <sub>x</sub>  | 20  | 10   |
| SO <sub>2</sub>  | 20  | 10   |
| VOC              | 20  | 10   |
| PM <sub>10</sub> | 7.5   | 5  |
| Lead             | 0.3   | 0.3  |

ADEQ then asked RTP to use the Maricopa County 2006 emissions inventory to analyze the impact of these two scenarios. Because of the severity of the air quality problems in the Phoenix Metropolitan Area, Maricopa County has for some time employed much lower permitting thresholds than ADEQ and therefore has a much more complete inventory of smaller emission sources.

The results of the analysis were as follows:

**Scenario 1**

|                          | <b>CO</b> | <b>NO<sub>x</sub></b> | <b>Pb</b> | <b>PM<sub>10</sub></b> | <b>SO<sub>2</sub></b> | <b>VOC</b> |
|--------------------------|-----------|-----------------------|-----------|------------------------|-----------------------|------------|
| % of emissions regulated | 34.86     | 78.38                 | 0.00      | 79.47                  | 22.19                 | 59.96      |
| % of sources regulated   | 2.06      | 7.60                  | 0.00      | 12.57                  | 0.59                  | 8.85       |

**Scenario 2**

|                          | <b>CO</b> | <b>NO<sub>x</sub></b> | <b>Pb</b> | <b>PM<sub>10</sub></b> | <b>SO<sub>2</sub></b> | <b>VOC</b> |
|--------------------------|-----------|-----------------------|-----------|------------------------|-----------------------|------------|
| % of emissions regulated | 56.86     | 85.65                 | 0.00      | 84.22                  | 72.57                 | 75.89      |
| % of sources regulated   | 5.00      | 13.16                 | 0.00      | 15.52                  | 4.13                  | 16.49      |

Both scenarios result in a relatively large percentage of emissions being subject to regulation compared to the percentage of sources brought into the program. Based on the Maricopa County data, using Scenario 2 rather than Scenario 1 would result in considerable gains in coverage of carbon monoxide and sulfur dioxide emissions. Stationary source emissions of carbon monoxide, however, are dwarfed by mobile source emissions and do not contribute significantly to nonattainment of the carbon monoxide NAAQS. In areas under state jurisdiction, the sources that could contribute to noncompliance with the sulfur dioxide NAAQS are well-defined and consist of large industrial sources already subject to the permitting program. For purposes of minor source regulation, Scenario 2 does not offer any substantial benefits over Scenario 1.

Moreover, ADEQ believes that current economic uncertainties and constraints on state resources favor caution in expanding the scope of the state's new source review program. In addition, the Scenario 1 thresholds will bring ADEQ's program more in line with those of neighboring states, as summarized above. ADEQ is therefore proposing to use Scenario 1, or one-half the significant levels, rather than Scenario 2, as the applicability thresholds for minor NSR.

To further reduce the burdens of the new minor NSR program, sources with emissions between the Scenario 1 levels and the current thresholds (i.e. between one-half significant and significant) will not require a permit, but will instead be subject to a new, streamlined registration program. As described in greater detail below, ADEQ will use the registration program to screen these sources for potential interference with the NAAQS and to ensure they comply with the control strategy, thus satisfying the requirements of minor NSR.

**How Applicability Works**

The Scenario 1 thresholds (defined in the proposed rules as the "permitting exemption thresholds") will apply both to new sources and to modifications. New sources with the potential to emit, without controls, criteria pollutants or their precursors (known as "regulated minor NSR pollutants") at a rate between permitting exemption thresholds and the significant level will be subject to the new registration program. (ADEQ will screen these sources for possible application of minor NSR, as described below). A modification at any permitted source that increases its potential to emit a regulated minor NSR pollutant by more than one-half the significant level will be subject to minor NSR.

The netting of increases against decreases to avoid minor NSR applicability is not allowed, except in the case of the replacement of an existing emission unit with a new one.



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The following tables describe the applicability of the various NSR programs in greater detail. For purposes of the tables, a regulated NSR pollutant is any criteria pollutant or precursor plus pollutants subject to certain other CAA requirements, such as hydrogen sulfide and total reduced sulfur. Regulated minor NSR pollutants consist solely of the criteria pollutants and their precursors.

New Source:

| <b>Potential to Emit</b>  | <b>Applicable Program</b>                        |
|---|--|
| ≥ major source threshold for at least one regulated NSR pollutant*<br>≥ significant for any other regulated NSR pollutant   | Major NSR  |
| ≥ significant for at least one regulated NSR pollutant (or source is otherwise required to obtain class I or II permit)<br>≥ 1/2 significant (permitting exemption threshold) for any regulated minor NSR pollutant | Minor NSR  |
| ≥ 1/2 significant for any regulated minor NSR pollutant   | Registration; screen for minor NSR applicability |

\*Applicable thresholds depend on source category and attainment status and classification of area in which source locates

Modification:

| <b>Existing Source PTE</b>   | <b>Emission Increase Test</b> | <b>Increase</b>   | <b>Applicable Program</b> |
|--|-------------------------------|---|---------------------------|
| ≥ major source threshold for any regulated NSR pollutant                               | actual-to-projected-actual    | ≥ significant for any regulated NSR pollutant*                            | Major NSR                 |
| ≥ major source threshold for any regulated NSR pollutant                               | potential-to-potential        | ≥ 1/2 significant for any regulated minor NSR pollutant                   | Minor NSR                 |
| ≥ significant for any regulated NSR pollutant (or otherwise required to obtain permit) | potential-to-potential        | ≥ 1/2 significant for any regulated minor NSR pollutant                   | Minor NSR                 |
| ≥ 1/2 significant for any regulated minor NSR pollutant                                | potential-to-potential        | ≥ 0.3 TPY for lead or 2.5 TPY for any other regulated minor NSR pollutant | Revised registration      |

\*Both a significant increase and a significant net increase must occur for major NSR to apply.

Once a source's emissions of a single pollutant cross the necessary threshold, NSR applicability is determined on a pollutant-by-pollutant basis. It is therefore possible for multiple pollutants to be subject to NSR and for a modification to a major source to be subject to both minor and major NSR.

If a pollutant is subject to major NSR, minor NSR does not apply. If a source is subject to minor NSR, and therefore requires a Class I or II permit, registration does not apply. Thus, an applicant should evaluate applicability in the order indicated in the tables, from the most stringent to the least stringent program.

The extent to which controls (which may include operational restrictions, such as limits on throughput or hours of operation) are considered in determining potential to emit for a source or modification varies with the program and the type of activity. The methods for limiting a source's potential to emit—and thereby avoiding NSR, permitting or registration requirements—are summarized in this table:

| <b>Program</b> | <b>Type of Activity</b>                | <b>Limits Considered</b>   |
|----------------|--|--|
| Major NSR      | Construction of source or modification | Only limits that are enforceable by permit   |
| Minor NSR      | Construction of source                 | Limits that are enforceable by permit<br><br>Limits that are enforceable by an elective limit or control in a registration (see below) |

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|              |  |  |
|--------------|--|--|
| Minor NSR    | Modification                           | Only limits that are enforceable by permit |
| Registration | Construction of source or modification | None                                       |

**Protection of the NAAQS**

The proposal provides two options for complying with the section 110(a)(2)(C) requirement to ensure that the NAAQS are protected.

First, a source subject to the program may elect to install Reasonably Available Control Technology (RACT). See new R18-2-334(C)(1). The proposal defines RACT (in R18-2-101) to mean control techniques that ADEQ determines to be reasonably available taking into account the “necessity of imposing the controls in order to attain and maintain” a NAAQS, the “social, environmental, energy and economic impact of the controls,” control technology used by similar sources and the “capital and operating costs and technical feasibility of the controls.” In the minor NSR rule for Indian Country, EPA concluded that a control technology requirement could fulfill the requirements of section 110(a)(2)(C). *76 Fed. Reg.* 38761.

In order to streamline the RACT determination process, the proposal establishes a number of RACT safe harbors. See new R18-2-334(D)(2). If a permit applicant proposes to comply with the most recently adopted of any of the standards or guidelines listed in the rule, such as RACT standards established by state or county rule, ADEQ shall accept the proposal as meeting the RACT requirement. If no such standard or guideline is available or the source elects not to use a safe harbor, a case-by-case determination of RACT will be required.

Second, the source may choose to demonstrate through an air quality impact analysis that emissions from the source or minor NSR modification will not interfere with attainment or maintenance of a NAAQS. See new R18-2-334(C)(2). The source owner or operator may elect to have ADEQ perform an initial SCREEN model to assess the source or modification’s impact on air quality. If the SCREEN model, which employs conservative assumptions and tends to over-predict ambient impacts, demonstrates no threat to a NAAQS, then the owner or operator has satisfied the requirements of minor NSR for the pollutant modeled. Otherwise, more refined modeling will be required. An owner or operator can demonstrate no threat to the NAAQS either by showing that the ambient impact from the source or modification will be below the significant impact levels defined in R18-2-101 or that the ambient impact, combined with existing ambient concentrations, will not exceed a NAAQS.

When an owner or operator elects to pursue the first option, installation of RACT, ADEQ may nevertheless require performance of an ambient air quality impact analysis, if the Department concludes that there is reason to believe the source or modification could interfere with attainment or maintenance of the NAAQS. ADEQ believes this safeguard is necessary to assure that the state’s minor NSR program is approvable under section 110(a)(2)(C).

**Public Review**

All permit applications for new sources are already subject to public review and comment under A.A.C. R18-2-330. Thus, the public will always have an opportunity to review and comment on minor NSR for new sources.

Permit revisions subject to minor NSR will also require public review with two exceptions: (1) if the applicant adopts a safe harbor RACT standard or guideline, obviating the need for a case-by-case RACT determination or (2) if the SCREEN model demonstrates that the modification’s ambient impact, combined with existing concentrations, is less than 75% of the NAAQS. ADEQ believes that in both of these cases the potential utility of any public comments will be minimal.

**Registration Program**

**Rationale**

ADEQ is proposing that sources with emissions between the new permitting exemption thresholds (i.e. one-half the significant levels) and the existing permit threshold (i.e. the significant levels) shall not be subject to the existing Class II permit program for minor sources. The Class II program is in most respects identical to the Class I program for major sources subject to Title V of the CAA. ADEQ believes that the complex application and compliance requirements of those programs would prove overly burdensome for the small businesses that are likely to be subject to regulation under the lower thresholds.

Instead, ADEQ proposes to adopt a new registration program for these smaller sources. This program will enable ADEQ to meet EPA Region 9’s objections to the existing thresholds while minimizing the burden imposed on currently unpermitted sources. In addition, as discussed below, the registration program will allow some smaller sources that currently require a permit to obtain a registration instead, thus reducing the existing regulatory burden.

**Registration Requirements**

The application and processing procedures for the registration program are highly streamlined as compared to the Department’s existing permitting procedures. See new R18-2-302.01(A), (B). Among other things, a registration application will be required to include the source’s potential to emit regulated minor NSR pollutants. Gathering this information from registrations will help the Department make better-informed decisions on the appropriate scope of minor NSR, as well as other regulatory issues involving small stationary sources, in the future.

Except for registrations that include elective limits, see below, the contents of a registration will be limited to a list of emissions units together with their applicable requirements and a requirement to retain records and make them available for inspection. See new R18-2-302.01(E).

At the registrant's option, a registration may include elective limits or controls designed to limit the source's potential to emit. See new R18-2-302.01(F). The rule identifies specific types of limits and controls that are eligible for inclusion in a registration as well as the monitoring and recordkeeping requirements necessary to assure compliance. A registrant that accepts elective limits or controls in its application must submit an annual compliance report to ADEQ. (Periodic reporting is not otherwise required for sources subject to registration.)

It should be noted that elective limits or controls are not considered in determining whether a source is subject to registration, since the limits or controls must be included in a registration to be effective. The limits, however, are considered in other contexts and provide a number of advantages to the registrant, as described below.

Although the primary purpose of the registration program is to provide a minor NSR screening program for smaller sources, ADEQ is proposing to require registration for both new and existing sources. ADEQ believes subjecting existing sources to the program will:

- Level the regulatory playing field for new and existing sources;
- Help prevent inadvertent violations of minor NSR requirements;
- Provide ADEQ with more complete data on small source emissions; and
- Improve small source awareness of and compliance with existing regulatory requirement.

#### **Integration with Minor NSR Requirements**

New sources subject to registration will *not* automatically require minor NSR. Rather, the proposed rule enables ADEQ to use the registration program as a means of screening these smaller sources for potential minor NSR applicability.

Specifically, new R18-2-302.01(C) provides for ADEQ review of registrations to determine whether the source may interfere with attainment or maintenance of a NAAQS. If ADEQ determines, based on factors listed in the rule, that interference is possible, the Department will perform a SCREEN model run. If the modeling finds (based on the conservative assumptions inherent in the SCREEN model), that interference may occur, ADEQ will deny the registration and require the applicant to submit an application for a permit subject to the minor NSR requirements described above. Thus, the registration program will assure compliance with section 110(a)(2)(C) of the Act for sources with emissions below existing permitting thresholds, without subjecting all of those sources to the existing permit program.

ADEQ review of registrations for possible NAAQS interference will be mandatory in some cases and discretionary in others. Review will be mandatory for sources with the potential to emit any regulated minor NSR pollutant above the permitting exemption threshold and discretionary for all other sources. In determining potential to emit for this purpose, elective limits or controls will be considered.

#### **Public Participation**

New registered sources with the potential to emit, taking elective limits or controls into account, any regulated minor NSR pollutant above the permitting exemption threshold, will be subject to the public participation requirements of R18-2-330. This will provide the public with the opportunity to comment on ADEQ's mandatory review of new registrations for NAAQS compliance and therefore satisfy the requirements of 40 CFR 51.161.

#### **Exemptions from Permitting**

ADEQ's existing permit rules require a source subject to a new source performance standard (NSPS) or national emission standard for hazardous air pollutants (NESHAP) adopted under section 111 or 112 of the Act to obtain a Class II permit, regardless of whether the source's emissions exceed the significant levels. In the course of administering the program, ADEQ has found that imposing full permit requirements on most of the sources subject to this provision is unduly burdensome. ADEQ is therefore proposing to move these sources from the permit program to the registration program. As a safeguard, the rule gives ADEQ the authority to require individual NSPS or NESHAP sources to obtain a permit rather than a registration.

ADEQ is also proposing to exempt certain NSPS and NESHAP sources with emissions below the permitting exemption thresholds from registration as well as permitting.

Finally, ADEQ is proposing to allow sources to use elective limits or controls to avoid the need to obtain a permit. If a source that would otherwise require a permit, because its uncontrolled emissions of a regulated pollutant exceed the significant level, registers and adopts an elective limit or control that ensures its potential to emit will remain less than significant, the source becomes exempt from permitting under the proposed rule.

**Section by Section explanation of proposed rule changes:**

- R18-2-101 Add and amend definitions used in major and minor NSR programs, as well as definitions used in related permit rules. Add definitions from statutes, rather than incorporating by reference, in order to facilitate EPA approval of rules into SIP.
- R18-2-102 Update reference to test methods used to assure compliance with permit conditions as well as other applicable requirements.
- R18-2-201 Update particulate matter ambient air quality standards to reflect latest EPA revisions. Deleted annual PM<sub>10</sub> standard as required by HB 2617.
- R18-2-202 Update sulfur dioxide ambient air quality standards to reflect latest EPA revisions.
- R18-2-203 Update ozone ambient air quality standards to reflect latest EPA revisions.
- R18-2-205 Update nitrogen dioxide ambient air quality standards to reflect latest EPA revisions.
- R18-2-206 Update lead ambient air quality standards to reflect latest EPA revisions.
- R18-2-210 Update incorporation by reference of attainment designations used in NSR programs.
- R18-2-218 Add PM<sub>2.5</sub> increments adopted by EPA.
- R18-2-219 Repeal outdated method for determining NAAQS violations.
- R18-2-301 Add and amend definitions used in minor NSR and registration programs, as well as definitions used in related permit rules. Add definitions from statutes, rather than incorporating by reference, in order to facilitate EPA approval of rules into SIP.
- R18-2-302 Amend permit applicability provisions to be consistent with new registration program. Add new exemptions for certain NSPS and NESHAP sources.
- R18-2-302.01 New registration program described above.
- R18-2-303 Update transition provisions to reflect other amendments and to eliminate outdated sections.
- R18-2-304 Amend application processing procedures to reflect minor NSR program. Eliminate outdated provisions. Clarify other provisions to in response to stakeholder and EPA concerns.
- R18-2-310.01 Add *option* for registered sources to report excess emissions in order to be eligible for affirmative defense.
- R18-2-317 Add minor NSR applicability as additional gatekeeper for changes that may proceed without permit revision.
- R18-2-317.01 Add reference to minor NSR to list of changes requiring permit revision.
- R18-2-317.02 Fix cross-reference.
- R18-2-319 Add minor NSR applicability as additional gatekeeper for changes eligible for minor permit revision. Eliminate outdated provision.
- R18-2-320 Add changes subject to minor NSR to list of changes requiring significant revisions. Eliminate outdated provision.
- R18-2-321 Add references to registrations to rule allowing permit reopening, reissuance or termination. Eliminate outdated provision.
- R18-2-324 Add provisions for terminating portable source permits when a new permit is issued by another jurisdiction.
- R18-2-327 Update references to AP-42 emission factors, as requested by EPA.
- R18-2-330 Conforming changes to public review procedures.
- R18-2-334 New Minor NSR rule, as described above.
- R18-2-401 Add and amend definitions used in major NSR program.
- R18-2-402 Revise applicability of major NSR to be consistent with NSR Reform.
- R18-2-403 Revise nonattainment major NSR rule to be consistent with EPA requirements.
- R18-2-404 Revise nonattainment NSR offset rule to be consistent with EPA requirements.
- R18-2-405 Revise nonattainment major NSR rule for certain ozone nonattainment areas to be consistent with EPA requirements.
- R18-2-406 Revise PSD (major NSR for attainment areas) rule to be consistent with EPA requirements.
- R18-2-407 Add significant monitoring concentration for PM<sub>2.5</sub>.

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|           |   |
|-----------|---|
| R18-2-411 | Repeal outdated and probably unapprovable rule relating to the restart of major sources of sulfur dioxide in nonattainment areas. |
| R18-2-412 | Add PAL provision described above.  |
| R18-2-502 | Add provision allowing imposition of minor NSR RACT in general permit.  |
| R18-2-503 | Eliminate outdated provisions relating to time-frames.  |
| R18-2-505 | Clarify renewal requirements.   |
| R18-2-512 | Establish which changes at facilities granted coverage under general permit require authorization.                                |
| R18-2-513 | Clarify obligations of portable sources subject to general permit.  |
| R18-2-614 | Update test methods.  |
| R18-2-719 | Update test methods.  |

**6. A reference to any study relevant to the rule that the agency reviewed and proposes either to rely on or not to rely on in its evaluation of or justification for the rule, where the public may obtain or review each study, all data underlying each study, and any analysis of each study and other supporting material:**

An electronic or printed version of the following materials relied on in the evaluation and justification for this proposed rule may be obtained from the agency contact identified in item 4 above:

E-mail from Al-Rayes to Baggiore re Modeling Costs (Dec. 21, 2010)

E-mail from Al-Rayes to Baggiore re Modeling Run Cost (Sept. 29, 2011)

Maricopa County 2006 Data Analysis (RTP 2008)

Memorandum from William T. Harnett Director, Air Quality Policy Division to Regional Air Division Directors re RACT Qs & As – Reasonably Available Control Technology (RACT): Questions and Answers (EPA May 18, 2006)

Revised Minor NSR Thresholds Comparison (RTP 2008)

**7. A showing of good cause why the rulemaking is necessary to promote a statewide interest if the rulemaking will diminish a previous grant of authority of a political subdivision of this state:**

Not applicable

**8. The preliminary summary of the economic, small business, and consumer impact:**

The following discussion addresses each of the elements required for an economic, small business and consumer impact statement (ESBCIS) under A.R.S. § 49-1055(A).

**An identification of the proposed rulemaking.**

The rulemaking addressed by this ESBCIS is the adoption of amendments designed to bring ADEQ's NSR rules into conformance with federal requirements. In particular, this ESBCIS covers the adoption of new rules (R18-2-302.01 and R18-2-334) designed to conform to federal requirements for minor NSR and rule amendments designed to incorporate recent changes to EPA's major NSR regulations. These rule changes are described in greater detail in item 5 of the preamble.

The registration rule (R18-2-302.01) will result in a mix of both additional costs and cost savings for both ADEQ and regulated entities. The minor NSR rule (R18-2-334) will increase the costs of compliance for sources subject to that program.

Two specific elements of the major NSR amendments are addressed in the ESBCIS:

1. New and amended ambient standards that EPA has adopted since ADEQ last amended Article 2 and that may need to be addressed in PSD applications and permitting decisions, specifically: the PM<sub>2.5</sub> increments, the new one-hour NAAQS for sulfur dioxide and nitrogen dioxide and the more stringent annual NAAQS for PM<sub>2.5</sub> and eight-hour NAAQS for ozone. These changes may result in increased compliance costs for sources and minor increased administrative costs for ADEQ.
2. NSR reform amendments. These changes will reduce compliance costs and will have a mixed effect on ADEQ's administrative costs.

The remaining changes to major NSR are technical in nature and should have little, if any, economic impact on the agency, businesses or consumers.

**An identification of the persons who will be directly affected by, bear the costs of or directly benefit from the proposed rulemaking.**

In general terms, the persons who will be directly affected by and bear the costs of the proposed rulemaking will be businesses that construct or modify stationary sources that are subject to major or minor NSR. The emissions thresholds for sources and modifications subject to major and minor NSR are described in detail in item 5 of the preamble.

The types of Arizona business operations subject to major NSR typically include Portland cement plants, iron and steel mills, primary copper smelters, hard-rock mining operations, petroleum refineries, lime plants, fiberglass production facilities, wood furniture manufacturers, paper mills and fossil-fueled power plants. Major sources tend to be large facilities operated by publicly owned corporations and employing hundreds or thousands of employees.

As discussed in item 5 of the preamble, major sources are potentially subject to minor as well as major NSR. Minor NSR may also apply to smaller business operations or operations that, although substantial in scale, tend to have emissions below the major source thresholds. These include, rock quarrying and crushing operations, concrete batch plants, asphalt plants, semiconductor manufacturers, aircraft engine and parts manufacturers, landfills and petroleum bulk stations and terminals.

The above list is obviously not exhaustive. Any business that engages in pollutant emitting activities is potentially subject to NSR. Typical pollutant-emitting activities include fuel combustion to produce energy or as part of a process, the use of solvents, the application of coatings, the storage of fuels and other organic liquids and the handling of materials likely to give rise to airborne dust. Tailpipe emissions from mobile sources are not considered in determining NSR applicability.

As noted in item 5 of the preamble, some stationary sources that currently require Class II permits will be eligible for registration. ADEQ anticipates that compliance with the registration program will be significantly less onerous and costly than obtaining a Class II permit. These sources, which may include dry cleaners, concrete batch plants, hospitals and wastewater treatment plants, will therefore directly benefit from this rulemaking.

**A cost benefit analysis of the following:**

**(a) The probable costs and benefits to the implementing agency and other agencies directly affected by the implementation and enforcement of the proposed rulemaking.**

As required by A.R.S. § 49-426(E), the hourly rate for billable permit actions under A.A.C. R18-2-326(B)(1)(a) and (H) has been set to reflect ADEQ's cost of processing permit applications. See 13 A.A.R. 4379, 4389-90 (Dec. 14, 2007). Therefore, in assessing the costs to ADEQ of conducting the permitting and administrative activities required by this rule, the Department has assumed that the cost per additional hour of employee time is equal to the current hourly rate of \$141.50.

**Major NSR**

ADEQ's costs of implementing the additional major NSR requirements will likely be minimal. In fact implementation of NSR reform may result in a net cost savings for the Department.

One element of the major NSR amendments that may increase ADEQ's costs of administering the air quality permit program is the incorporation of the new ambient standards: the PM<sub>2.5</sub> increments, the one-hour sulfur dioxide NAAQS and the one-hour nitrogen dioxide NAAQS. The air quality impact analysis for major NSR permit applications addressing these pollutants will be somewhat longer and more complex than previously and will therefore require additional review time by ADEQ's permit engineers. (The other NAAQS amendments, on the other hand, constitute an increase in the stringency of existing standards and should not result in any modeling or review time beyond that already required.)

ADEQ processes on average two major NSR permit applications per year. Not all of these will require an air quality analysis for the new ambient standards. For those that do, the Air Quality Division Permit Section (AQDPS) estimates that the additional impact analysis review time would be at most five hours. The maximum total annual cost to the agency per year for the additional major NSR requirements will therefore be \$141.50 X 5 or \$707.50.

Under A.A.C. R18-2-301(2) and R18-2-326(B)(1)(a), the permit applicant will ultimately be required to reimburse the Department for this cost as part of its permit fee.

The impact of NSR reform on ADEQ's air quality permitting costs is difficult to gauge. NSR reform includes elements that could either increase or reduce the costs of administering the major NSR program. For example, the availability of the actual-to-projected actual test, as an alternative to the actual-to-potential test, for determining whether there is an emissions increase should reduce the number of applications for synthetic minor permits that the Department must process each year. On the other hand, synthetic minor permits for modifications must contain enforceable conditions, including monitoring, recordkeeping and reporting requirements, to assure that emissions increases do not exceed the major modification thresholds (i.e. the significance levels). A source employing the actual-to-projected-actual test is subject to no such conditions. Enforcing the prohibition against constructing a major modification against such a source may prove more uncertain, time consuming and therefore costly, than enforcing the terms of a synthetic minor permit.

The AQDPS believes that on balance, the cost savings of NSR reform will outweigh whatever additional costs will be imposed. This is consistent with EPA's conclusion that NSR reform would allow state permitting authorities to "focus their limited resources on those activities that could cause real and significant increases in pollution." 67 Fed. Reg. 80186, 80192 (2002).

Minor NSR

Minor NSR will apply to all new sources with the potential to emit any regulated minor NSR pollutant above the significance levels and any existing permitted source that increases its potential to emit any regulated minor NSR pollutant by more than the “permitting exemption threshold” (i.e., 3/4 the significance level). In addition, new sources seeking registration may be required to obtain a permit and undergo minor NSR under R18-2-302.01(C).

Based on experience in administering the existing permit program, the AQDPS estimates that it will process approximately seven applications for permit and permit revisions subject to minor NSR per year. AQDPS also estimates that the average additional time for review of the minor NSR components of a permit or permit revision application (applicability analysis, case-by-case, RACT analysis, assertion of eligibility for RACT safe-harbor coverage and/or air quality impact analysis) will be approximately equal to the time needed for the review of a minor permit revision application, or 10 hours.

The Department’s estimated total annual cost to administer the minor NSR program will therefore be 7 applications X 10 hours X \$141.50 per hour = \$9,905.

Registration

The registration program will result in both additional costs and cost-savings to ADEQ. To the extent the program applies to sources that do not require a permit under current rules, it will generate additional work for ADEQ’s permit engineers and therefore increase the Department’s costs. On the other hand, as noted in item 5 of the Preamble, sources that currently require a Class II permit solely because they are subject to an NSPS or NESHAP will be eligible for registration. Since the time to issue and administer a registration will be significant less than the time required for a Class II permit, this switch will result in cost savings for ADEQ. In addition, the rule amendments eliminate the requirement to obtain any sort of license, permit or registration, for certain NSPS and NESHAP sources, resulting in additional cost savings.

To estimate the number of existing sources that do not currently require a permit but will be subject to the new registration program, ADEQ took the total number of Maricopa County sources that would be subject to the program according to the study discussed in reference 5 above and multiplied that number (150) by the ratio of the population (according to the 2010 U.S. Census, <http://quickfacts.census.gov/qfd/states/04000.html>) of counties subject to ADEQ jurisdiction (1,218,867) to the population of Maricopa County (3,817,117). The result is 48 sources requiring registration.

The content and complexity of a registration should be no greater than that of an application for authority to operate (ATO) under a general permit. Since the average time to review an ATO application is approximately five hours, the average review time for registrations should be approximately the same.

Registrations will have a five year term, and ADEQ intends to stagger its notices requiring registration submissions under R18-2-303(D) over the first five years of the program in order to assure an even distribution of the workload from this new program. The estimated annual cost for reviewing registrations for existing sources is therefore:

48 sources X 5 hours per registration X \$141.50 per hour / 5 year registration term = \$6,792.

Based on experience with the existing permit program, AQDPS estimates that approximately 40 registrations for new sources will be filed each year. The estimated annual cost for reviewing registrations for new sources will therefore be:

40 sources X 5 hours per registration X \$141.50 per hour = \$28,300.

ADEQ estimates that it will conduct a combination of complaint-based and audit inspections for approximately 10% of registered sources per year and that the average time to complete each inspection and pursue any necessary enforcement actions will be 10 hours. The estimated compliance and enforcement costs for the new program is 10% X 48 sources X \$141.50 per hour X 10 hours = \$6,792.

The total estimated annual cost of the registration program is therefore:

\$6,792 (issuing registrations to existing sources) + \$28,300 (issuing registrations to new sources) + \$6,792 (compliance and enforcement) = \$35,092.

Again, these costs will be at least partially offset by the savings described above.

The proposed rule delays the effective date for the registration program until EPA approves it into the SIP as a component of minor NSR. In the interim, ADEQ intends to adopt a permit fee under A.R.S. § 49-426(E) that assures recoupment of the costs of administering the program.

Total for all NSR amendments

The total estimated annual cost to ADEQ of the NSR amendments is:

\$707.50 (additional major NSR costs) + \$9,905 (minor NSR costs) + \$35,092 (registration costs) = \$45,704.50.

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As noted above, these costs will be at least partially offset by savings from the transition of some permitted sources to the registration program and possibly by net savings from implementation of NSR reform.

Other Agencies

Fifteen sources operated by state agencies require permits under the current program. They represent approximately 2% of all ADEQ-permitted sources. Additional state-operated sources are likely to be subject to the registration program. All of these state-operated sources will bear the same costs of compliance described in section (c) below for privately owned businesses.

**(b) The probable costs and benefits to a political subdivision of this state directly affected by the implementation and enforcement of the proposed rulemaking.**

Sixty-four sources operated by political subdivisions require permits under the current program. They represent approximately 8% of all ADEQ-permitted sources. Additional sources operated by political subdivisions are likely to be subject to the registration program. All of these sources will bear the same costs of compliance described in section (c) below for privately owned businesses.

ADEQ considers any impacts to sources in counties with their own pollution control programs to be indirect.

**(c) The probable costs and benefits to businesses directly affected by the proposed rulemaking, including any anticipated effect on the revenues or payroll expenditures of employers who are subject to the proposed rulemaking.**

Major NSR

As discussed in item 5 of the Preamble, the amendments to ADEQ's major NSR rules are the minimum necessary to comply with federal requirements for the program. Even if ADEQ failed to adopt these amendments, they would ultimately apply to major sources in Arizona either through the adoption of a federal implementation plan (FIP) by EPA under section 110(c) of the Clean Air Act (in the case of PSD) or the application of 40 CFR 51, Appendix S (in the case of nonattainment NSR). At best, a decision by ADEQ not to adopt the major NSR amendments would result in a temporary delay in their application to sources in the state. A discussion of the additional costs and benefits of the amended requirements at the state level nevertheless follows.

The new and amended ambient standards incorporated by this rule may result in the imposition of three types of additional costs on applicants for major NSR permits.

First, a new major source or major modification with significant emissions of any of the pollutants subject to a new ambient standard (the PM<sub>2.5</sub> increments or the one-hour sulfur dioxide or nitrogen dioxide NAAQS) will be required to conduct additional modeling to demonstrate compliance with these standards. The AQDPS estimates that approximately one additional model run for each of the two major NSR applications typically filed in a year will be required. Based on information received from an environmental consultant, the cost adding one model run to a refined model would be approximately \$8,000.

Second, applicants will be responsible for paying permit fees equal to the additional permit processing costs necessitated by the amendments. As noted above, the estimated additional processing costs for major NSR are \$707.50.

Third, when modeling demonstrates an ambient impact resulting in non-compliance with an ambient standard (NAAQS or increments), mitigation beyond the level of control technology already required by major NSR is necessary. The cost of mitigation can be substantial but is highly dependent on the nature of the particular project and cannot be reliably estimated for purposes of the ESBCIS. Moreover, because major NSR automatically requires a very stringent level of control (BACT or LAER), mitigation is rarely necessary. Mitigation necessary to address non-compliance with any of the new standards imposed in the major NSR amendments will be an even rarer occurrence. Thus, the major NSR amendments are unlikely to result in additional mitigation costs.

The total estimated annual costs to sources subject to major NSR as a result of the rule amendments is therefore \$8,707.50 (\$8,000 + \$707.50) plus the costs of mitigation, in the unlikely event it is required.

NSR reform, on the other hand, is likely to generate substantial savings for existing major sources that are potentially subject to major NSR. The revised method for determining baseline emissions and the actual-to-projected-actual alternative for determining the level of future emissions will make it easier for sources to demonstrate the inapplicability of major NSR without obtaining a synthetic minor permit. Sources that obtain PALs will essentially be able to avoid major NSR and synthetic minor permitting for a 10-year period. The savings from these reforms are difficult to estimate, but ADEQ believes they will at least offset the additional costs described above.

Minor NSR

As noted above, ADEQ estimates that approximately seven of the minor and major sources requiring permits or permit revisions each year will be subject to minor NSR.

Based on experience with contractors performing accelerated permitting services, AQDPS estimates that cost of preparing the minor NSR components of a permit or permit revision application (RACT or air quality impact analysis)



will average \$4,000. The estimated total annual application preparation costs attributable to minor NSR is therefore: 7 applicants X \$4,000 per application = \$28,000.

To assess likely compliance costs, AQDPS projects that:

- 25% of minor NSR applicants will satisfy RACT by complying with an already applicable NSPS or NESHAP (R18-2-334(D)(2)(b)); and
- 70% will comply with minor NSR on the basis of SCREEN modeling conducted by ADEQ.

Thus, 95% of sources are projected to incur no additional compliance costs as a result of minor NSR.

AQDPS further projects that of the remaining 5%, half will be required to install additional controls to comply with RACT and half will demonstrate compliance with the NAAQS through more sophisticated modeling. Since 5% of seven applicants per year is 0.35, approximately one applicant will be required to conduct refined modeling or install RACT every three years.

Based on estimates provided by environmental consultants, ADEQ projects that the cost of running a refined model to comply with minor NSR will be approximately \$7,000 to \$12,000. Since it is estimated that one applicant will be subject to this requirement every three years, the annual estimated cost range is \$2,333 to \$4,000.

Control technology costs must be expressed as an annual amount, because they include operating costs and because the costs of installation are ordinarily amortized. In addition, the cost-effectiveness of controls depends on the amount of pollution reduced by the control technology under consideration. RACT costs are therefore usually expressed in terms of the cost per year of reducing emissions by one ton.

EPA has not established definitive ceilings for RACT costs but in guidance has indicated that, depending on the pollutant, costs may range from \$150 to approximately \$5,000 per ton of reduction per year *for major sources*. See Memorandum from William T. Harnett Director, Air Quality Policy Division to Regional Air Division Directors re RACT Qs & As – Reasonably Available Control Technology (RACT): Questions and Answers (EPA May 18, 2006). ADEQ anticipates that since the RACT standard allows consideration of cost-effectiveness for the specific operation subject to the standard, the costs for minor sources are unlikely to reach the upper end of this range.

It is not possible to project what level of reductions will be required of applicants that may be subject to the RACT standard under minor NSR. Thus, an estimate of absolute annual costs that may result from the program is not possible. The largest reduction that could conceivably be required under the program would be just under 250 tons per year, which is the highest major source threshold.

#### Registration

Based again on experience with contractors performing accelerated permitting services, AQDPS estimates that the average cost of preparing a registration will be \$2,000. As noted above, ADEQ will also charge a fee equal to the annual cost of registration processing and administration, estimated to be \$35,092, from registered sources.

Complying with the terms of a registration should impose no additional net costs on registrants. Registrations will contain two types of requirements: identification of regulations already applicable to the registrant by rule and elective limits assumed under R18-2-302.01(F). The registrant is already under an obligation to comply with any applicable regulations and therefore will incur no additional costs as a result of their identification in the registration. The purpose of elective limits is to enable registrants to avoid other requirements, including the requirement to obtain a Class II permit. The registrant will presumably adopt an elective limit only when the cost of doing so is less than the cost of the requirements avoided.

The total estimated annual cost to regulated entities of the registration program is therefore: \$2,000 preparation cost X 88 sources per year (48 renewals and 40 new) + \$35,092 total annual fees = \$211,092.

#### **A general description of the probable impact on private and public employment in businesses, agencies and political subdivisions of this state directly affected by the proposed rulemaking.**

ADEQ does not believe that the additional costs to businesses subject to the amended NSR requirements, as described above, will be substantial enough to deter the construction or expansion of business operations. Accordingly, there should be no impact on private employment or on the employment of any political subdivisions subject to NSR.

The Department estimates that approximately one new FTE will be needed to implement the new registration program and the additional workload that will result from implementing minor NSR. A more precise estimate of the employment impact of minor NSR will be included in the ESBCIS for the upcoming permit fee rule.

The amendments to major NSR include elements that will both reduce (NSR reform) and increase (new ambient standards) agency workload. ADEQ estimates that the net effect of the major NSR amendments on the agency's employment needs will be zero.

#### **A statement of the probable impact of the proposed rulemaking on small businesses.**

##### **(a) An identification of the small businesses subject to the proposed rulemaking.**

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Under A.R.S. § 49-101(20):

“Small business” means a concern, including its affiliates, which is [1] *independently owned and operated*, which is [2] *not dominant in its field* and which [3] *employs fewer than one hundred full-time employees or which had gross annual receipts of less than four million dollars in its last fiscal year*.

Most registration sources will likely qualify as small businesses as will many sources subject to minor NSR. It is unlikely that any major sources would qualify.

**(b) The administrative and other costs required for compliance with the proposed rulemaking.**

Small businesses will primarily incur the business costs described above for the registration program. On occasion, a small business may incur minor NSR costs, but ADEQ anticipates that this will be rare.

**(c) A description of the methods that the agency may use to reduce the impact on small businesses.**

**(i) Establishing less costly compliance requirements in the proposed rulemaking for small businesses.**

The registration program is a less costly alternative to the existing permit program designed specifically with small businesses in mind. Many small businesses currently required to obtain permits, for example dry cleaners, will be eligible for registration and will no longer require a permit. Thus, for some small businesses, the new program will be less costly than the current program.

**(ii) Establishing less costly schedules or less stringent deadlines for compliance in the proposed rulemaking.**

The registration and minor NSR programs will not be effective until approved by EPA into SIP. This is the latest the program could go into effect and still meet minimum federal requirements. For existing sources subject to the registration program, ADEQ has designed a system that will allow them to be phased in gradually according to a schedule to be developed by the Department.

**(iii) Exempting small businesses from any or all requirements of the proposed rulemaking.**

Most small businesses will be exempt from minor NSR, because their low emission rates will place them in the registration program, where minor NSR is the exception, rather than the rule. Many small businesses will benefit from safe harbor RACT exemption.

**(d) The probable cost and benefit to private persons and consumers who are directly affected by the proposed rulemaking.**

Some businesses may pass some of the additional costs estimated above on to consumers. Because the amendments will not substantially increase existing air quality compliance costs, ADEQ anticipates that the impact will be negligible.

**A statement of the probable effect on state revenues.**

Since the costs of the amendments will be recoverable through air quality permit fees, there will no net effect on state revenues.

**A description of any less intrusive or less costly alternative methods of achieving the purpose of the proposed rulemaking.**

As discussed in item 5 above, ADEQ has adopted amendments that the Department believes to be the minimum necessary to comply with federal NSR requirements. No less intrusive or costly alternatives are available.

**9. The agency’s contact person who can answer questions about the economic, small business and consumer impact statement:**

Name: Steven J. Burr  
Address: ADEQ, Air Quality Division Director’s Office,  
1110 W. Washington St.  
Phoenix, AZ 85007  
Telephone: (602) 771-4251 (Any ADEQ number may be reached in-state by dialing 1-800-234-5677, and asking for that extension.)  
Fax: (602) 771-2366  
E-mail: sb5@azdeq.gov

**10. The time, place, and nature of the proceedings to make, amend, repeal, or renumber the rule, or if no proceeding is scheduled, where, when, and how persons may request an oral proceeding on the proposed rule:**

Date: December 8, 2011  
Time: 5:00 p.m.

Location: Room 250  
ADEQ, 1110 W. Washington St.  
Phoenix, AZ 85007

Nature: Public Hearing

Close of Comment: January 12, 2011

**11. All agencies shall list other matters prescribed by statute applicable to the specific agency or to any specific rule or class of rules. Additionally, an agency subject to Council review under A.R.S. §§ 41-1052 and 41-1055 shall respond to the following questions:**

There are no other matters prescribed by statute applicable specifically to ADEQ or this specific rulemaking.

**a. Whether the rule requires a permit, whether a general permit is used and if not, the reasons why a general permit is not used:**

The rule requires permits as described in item 5 above. A general permit may be used to satisfy minor NSR requirements established by this rule. Federal law does not allow the enforcement of major NSR requirements through issuance of general permits, because major NSR requires case-by-case, facility-specific determinations.

**b. Whether a federal law is applicable to the subject of the rule, whether the rule is more stringent than federal law and if so, citation to the statutory authority to exceed the requirements of federal law:**

The federal Clean Air Act and implementing regulations adopted by EPA apply to the subject of this rule, as described in item 5 above. As discussed in item 5, the rule is no more stringent than required by federal law.

**c. Whether a person submitted an analysis to the agency that compares the rule's impact on the competitiveness of business in this state to the impact on business in other states:**

No such analysis was submitted.

**12. A list of any incorporated by reference material as specified in A.R.S. § 41-1028 and its location in the rules:**

| <b>Incorporation</b>                      | <b>Location in Rule</b>     |
|---|-----------------------------|
| Federal Clean Air Act                     | R18-2-101(1)                |
| Arizona Testing Manual                    | R18-2-101(17), R18-2-102(1) |
| Code of Federal Regulations               | R18-2-101(25)               |
| ASTM test methods                         | R18-2-102(2)                |
| Standard Industrial Classification Manual | R18-2-102(3)                |
| 40 CFR 81.303                             | R18-2-210                   |
| AP-42 Emission Factors                    | R18-2-327(C)(3)             |
| 40 CFR 51, Appendix W                     | R18-2-406(A)(6)             |

**13. The full text of the rule follows:**

**TITLE 18. ENVIRONMENTAL QUALITY**

**CHAPTER 2. DEPARTMENT OF ENVIRONMENTAL QUALITY**

**AIR POLLUTION CONTROL**

**ARTICLE 1. GENERAL**

Section

- R18-2-101. Definitions
- R18-2-102. Incorporated Materials

**ARTICLE 2. AMBIENT AIR QUALITY STANDARDS; AREA DESIGNATIONS; CLASSIFICATIONS**

Section

- R18-2-201. Particulate ~~matter~~ Matter: PM<sub>10</sub> and PM<sub>2.5</sub>
- R18-2-202. Sulfur ~~oxide (sulfur dioxide)~~ Oxide (Sulfur Dioxide)
- R18-2-203. Ozone: ~~1-hour standard and 8-hour averaged standard~~ One-hour Standard and Eight-hour Averaged Standard
- R18-2-205. Nitrogen ~~dioxide~~ Oxides (Nitrogen Dioxide)
- R18-2-206. Lead
- R18-2-210. Attainment, Nonattainment, and Unclassifiable Area Designations

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- R18-2-218. Limitation of Pollutants in Classified Attainment Areas
- R18-2-219. ~~Violations Repealed~~

**ARTICLE 3. PERMITS AND PERMIT REVISIONS**

Section

- R18-2-301. Definitions
- R18-2-302. Applicability; Registration; Classes of Permits
- R18-2-302.01. Source Registration Requirements
- R18-2-303. Transition from Installation and Operating Permit Program to Unitary Permit Program; Registration Transition; Minor NSR Transition
- R18-2-304. Permit Application Processing Procedures
- R18-2-310.01. Reporting Requirements
- R18-2-317. Facility Changes Allowed Without Permit Revisions - Class I
- R18-2-317.01. Facility Changes that Require a Permit Revision - Class II
- R18-2-317.02. Procedures for Certain Changes that ~~do not~~ Do Not Require a Permit Revision - Class II
- R18-2-319. Minor Permit Revisions
- R18-2-320. Significant Permit Revisions
- R18-2-321. Permit Reopenings; Revocation and Reissuance; Termination
- R18-2-324. Portable Sources
- R18-2-327. Annual Emissions Inventory Questionnaire
- R18-2-330. Public Participation
- R18-2-334. Minor New Source Review

**ARTICLE 4. PERMIT REQUIREMENTS FOR NEW MAJOR SOURCES AND MAJOR MODIFICATIONS TO EXISTING MAJOR SOURCES**

Section

- R18-2-401. Definitions
- R18-2-402. General
- R18-2-403. Permits for Sources Located in Nonattainment Areas
- R18-2-404. Offset ~~and Net Air Quality Benefit~~ Standards
- R18-2-405. Special Rule for Major Sources of VOC or Nitrogen Oxides ~~of Nitrogen~~ in Ozone Nonattainment Areas Classified as Serious or Severe
- R18-2-406. Permit Requirements for Sources Located in Attainment and Unclassifiable Areas
- R18-2-407. Air Quality Impact Analysis and Monitoring Requirements
- R18-2-411. ~~Special Rule for Non-operating Sources of Sulfur Dioxide in Sulfur Dioxide Nonattainment Areas~~ Repealed
- R18-2-412. PALs

**ARTICLE 5. GENERAL PERMITS**

Section

- R18-2-502. General Permit Development
- R18-2-503. Application for Coverage under General Permit
- R18-2-505. General Permit Renewal
- R18-2-512. Changes to Facilities Granted Coverage under General Permits
- R18-2-513. Portable Sources Covered under a General Permit

**ARTICLE 6. EMISSIONS FROM EXISTING AND NEW NONPOINT SOURCES**

Section

- R18-2-614. Evaluation of Nonpoint Source Emissions

**ARTICLE 7. EXISTING STATIONARY SOURCE PERFORMANCE STANDARDS**

Section

- R18-2-701. Definitions
- R18-2-719. Standards of Performance for Existing Stationary Rotating Machinery

**ARTICLE 1. GENERAL**

**R18-2-101 Definitions**

In addition to the definitions prescribed in A.R.S. §§ 49-101, 49-401.01, 49-421, 49-471, and 49-541, in this Chapter, unless

~~otherwise specified. The following definitions apply to this Chapter. Where the same term is defined in this Section and in the definitions Section for an Article of this Chapter, the Article-specific definition shall apply.~~

1. "Act" means the Clean Air Act of 1963 (P.L. 88-206; 42 U.S.C. 7401 through 7671q) as amended ~~by the Clean Air Act Amendments of 1990 (P.L. 101-549) through December 31, 2010 (and no future editions).~~
2. "Actual emissions" means the actual rate of emissions of a regulated NSR pollutant from an emissions unit, as determined in subsections ~~(a)~~ (2)(a) through (e).
  - a. In general, actual emissions as of a particular date shall equal the average rate, in tons per year, at which the unit actually emitted the pollutant during a ~~two-year~~ consecutive 24-month period that precedes the particular date and that is representative of normal source operation. The Director may allow the use of a different time period upon a demonstration determination that it is more representative of normal source operation. Actual emissions shall be calculated using the unit's actual operating hours, production rates, and types of materials processed, stored or combusted during the selected time period.
  - b. ~~If there is inadequate information to determine actual historical emissions,~~ The Director may presume that source-specific allowable emissions for the unit are equivalent to the actual emissions of the unit.
  - c. For any emissions unit at a Class I source, ~~other than an electric utility steam generating unit in subsection (e),~~ that has not begun normal operations on the particular date, actual emissions shall equal the unit's potential to emit on that date.
  - d. For any emissions unit at a Class II source that has not begun normal operations on the particular date, actual emissions shall be based on applicable control equipment requirements and projected conditions of operation.
  - e. This definition shall not apply for calculating whether a significant emissions increase has occurred, or for establishing a PAL. Instead, the definitions of projected actual emissions and baseline actual emissions in R18-2-401 shall apply for those purposes. ~~For an electric utility steam generating unit (other than a new unit or the replacement of an existing unit), actual emissions of the unit following the physical or operational change shall equal the representative actual annual emissions of the unit, if the source owner or operator maintains and submits to the Director, on an annual basis for a period of five years from the date the unit resumes regular operation, information demonstrating that the physical or operational change did not result in an emissions increase. A longer period, not to exceed 10 years, may be required by the Director if the Director determines the longer period to be more representative of normal source post-change operations.~~
3. "Administrator" means the Administrator of the United States Environmental Protection Agency.
4. "Affected facility" means, with reference to a stationary source, any apparatus to which a standard is applicable.
5. "Affected source" means a source that includes one or more units which are subject to emission reduction requirements or limitations under Title IV of the Act.
6. "Affected state" means any state whose air quality may be affected by a source applying for a permit, permit revision, or permit renewal and that is contiguous to Arizona or that is within 50 miles of the permitted source.
7. "Afterburner" means an incinerator installed in the secondary combustion chamber or stack for the purpose of incinerating smoke, fumes, gases, unburned carbon, and other combustible material not consumed during primary combustion.
8. "Air contaminants" means smoke, vapors, charred paper, dust, soot, grime, carbon, fumes, gases, sulfuric acid mist aerosols, aerosol droplets, odors, particulate matter, wind-borne matter, radioactive materials, or noxious chemicals, or any other material in the outdoor atmosphere.
- ~~8-9.~~ "Air curtain destructor" means an incineration device designed and used to secure, by means of a fan-generated air curtain, controlled combustion of only wood waste and slash materials in an earthen trench or refractory-lined pit or bin.
10. "Air pollution" means the presence in the outdoor atmosphere of one or more air contaminants or combinations thereof in sufficient quantities, which either alone or in connection with other substances by reason of their concentration and duration are or tend to be injurious to human, plant or animal life, or cause damage to property, or unreasonably interfere with the comfortable enjoyment of life or property of a substantial part of a community, or obscure visibility, or which in any way degrade the quality of the ambient air below the standards established by the Director.
- ~~9-11.~~ "Air pollution control equipment" means equipment used to eliminate, reduce or control the emission of air pollutants into the ambient air.
- ~~10-12.~~ "Air quality control region" (AQCR) means an area so designated by the Administrator pursuant to Section 107 of the Act and includes the following regions in Arizona:
  - a. Maricopa Intrastate Air Quality Control Region which is comprised of the County of Maricopa.
  - b. Pima Intrastate Air Quality Control Region which is comprised of the County of Pima.
  - c. Northern Arizona Intrastate Air Quality Control Region which encompasses the counties of Apache, Coconino, Navajo, and Yavapai.
  - d. Mohave-Yuma Intrastate Air Quality Control Region which encompasses the counties of La Paz, Mohave, and Yuma.
  - e. Central Arizona Intrastate Air Quality Control Region which encompasses the counties of Gila and Pinal.

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- f. Southeast Arizona Intrastate Air Quality Control Region which encompasses the counties of Cochise, Graham, Greenlee, and Santa Cruz.
- ~~11-13.~~ "Allowable emissions" means the emission rate of a stationary source calculated using both the maximum rated capacity of the source, unless the source is subject to federally enforceable limits which restrict the operating rate or hours of operation, and the most stringent of the following:
- ~~The applicable New Source Performance Standards or National Emission Standards for Hazardous Air Pollutants, as contained in Articles 9 or 11 of this Chapter standards as set forth in 40 CFR 60 or 61;~~
  - The applicable existing source performance standard, as approved for the SIP and contained in Article 7 of this Chapter; or,
  - The emissions rate specified in any federally promulgated rule or federally enforceable permit conditions applicable to the ~~state of Arizona~~ stationary source.
- ~~12-14.~~ "Ambient air" means that portion of the atmosphere, external to buildings, to which the general public has access.
- ~~13-15.~~ "Applicable implementation plan" means those provisions of the state implementation plan approved by the Administrator or a federal implementation plan promulgated for Arizona or any portion of Arizona in accordance with Title I of the Act.
- ~~14-16.~~ "Applicable requirement" means any of the following:
- Any federal applicable requirement.
  - Any other requirement established pursuant to this Chapter or A.R.S. Title 49, Chapter 3.
- ~~15-17.~~ "Arizona Testing Manual" means sections 1 and 7 of the Arizona Testing Manual for Air Pollutant Emissions amended as of March 1992 (and no future editions).
- ~~16-18.~~ "ASTM" means the American Society for Testing and Materials.
- ~~17-19.~~ "Attainment area" means an area so designated by the Administrator acting pursuant to Section 107 of the Act as having ambient air pollutant concentration equal to or less than national primary or secondary ambient air quality standards for a particular pollutant or pollutants any area in the state that has been identified in regulations promulgated by the administrator as being in compliance with national ambient air quality standards.
- ~~18-20.~~ "Begin actual construction" means, ~~in general,~~ initiation of physical ~~on-site~~ onsite construction activities on an emissions unit which are of a permanent nature. ~~Such activities include installation of building supports and foundations, laying of underground pipework, and construction of permanent storage structures. With respect to a change in method of operation this term refers to those onsite activities, other than preparatory activities, which mark the initiation of the change.~~
- For purposes of Title I, Parts C and D and section 112 of the Act, and for purposes of applicants that require permits containing limits designed to avoid the application of Title I, Parts C and D and section 112 of the Act, ~~Such~~ these activities include installation of building supports and foundations, laying of underground pipework, and construction of permanent storage structures but do not include any of the following, subject to subsection (20)(c):
    - Clearing and grading, including demolition and removal of existing structures and equipment, stripping and stockpiling of topsoil.
    - Installation of access roads, driveways and parking lots.
    - Installation of ancillary structures, including fences, office buildings and temporary storage structures, that are not a necessary component of an emissions unit or associated air pollution control equipment for which the permit is required.
    - Ordering and onsite storage of materials and equipment.  - For purposes other than those identified in subsection (20)(a), these activities do not include any of the following, subject to subsection (20)(c):
    - Clearing and grading, including demolition and removal of existing structures and equipment, stripping and stockpiling of topsoil and earthwork cut and fill for foundations.
    - Installation of access roads, parking lots, driveways and storage areas.
    - Installation of ancillary structures, including fences, warehouses, storerooms and office buildings, provided none of these structures impacts the design of any emissions unit or associated air pollution control equipment.
    - Ordering and onsite storage of materials and equipment.
    - Installation of underground pipework, including water, sewer, electric and telecommunications utilities.
    - Installation of building and equipment supports, including concrete forms, footers, pilings, foundations, pads and platforms, provided none of these supports impacts the design of any emissions unit or associated air pollution control equipment.
  - An applicant's performance of any activities that are excluded from the definition of "begin actual construction" under subsection (20)(a) or (b) shall be at the applicant's risk and shall not reduce the applicant's obligations under this Chapter. The director shall evaluate an application for a permit or permit revision and make a decision on the same basis as if the activities allowed under subsection(20) (a) or (b) had not occurred.

- 19-21. “Best available control technology” (BACT) means an emission limitation, including a visible emissions standard, based on the maximum degree of reduction for each air regulated NSR pollutant listed in R18-2-101(97)(a) which would be emitted from any proposed major source or major modification, taking into account energy, environmental, and economic impact and other costs, determined by the Director in accordance with R18-2-406(A)(4) to be achievable for such source or modification.
- 20-22. “Btu” means British thermal unit, which is the quantity of heat required to raise the temperature of one pound of water 1°F.
23. “Categorically exempt activities” means the following:
- a. Any combination of diesel-, natural gas- or gasoline-fired engines with cumulative power equal to or less than 145 horsepower.
  - b. Natural gas-fired engines with cumulative power equal to or less than 155 horsepower.
  - c. Gasoline-fired engines with cumulative power equal to or less than 200 horsepower.
  - d. Any of the following emergency or stand-by engines used for less than 500 hours in each calendar year, provided the permittee keeps records documenting the hours of operation of the engines:
    - i. Any combination of diesel-, natural gas- or gasoline-fired emergency engines with cumulative power equal to or less than 2,500 horsepower.
    - ii. Natural gas-fired emergency engines with cumulative power equal to or less than 2,700 horsepower.
    - iii. Gasoline-fired emergency engines with cumulative power equal to or less than 3,700 horsepower.
  - e. Any combination of boilers with a cumulative maximum design heat input capacity of less than 10 million Btu/hr.
24. “Categorical sources” means the following classes of sources:
- a. Coal cleaning plants with thermal dryers;
  - b. Kraft pulp mills;
  - c. Portland cement plants;
  - d. Primary zinc smelters;
  - e. Iron and steel mills;
  - f. Primary aluminum ore reduction plants;
  - g. Primary copper smelters;
  - h. Municipal incinerators capable of charging more than 250 tons of refuse per day;
  - i. Hydrofluoric, sulfuric, or nitric acid plants;
  - j. Petroleum refineries;
  - k. Lime plants;
  - l. Phosphate rock processing plants;
  - m. Coke oven batteries;
  - n. Sulfur recovery plants;
  - o. Carbon black plants using the furnace process;
  - p. Primary lead smelters;
  - q. Fuel conversion plants;
  - r. Sintering plants;
  - s. Secondary metal production plants;
  - t. Chemical process plants, which shall not include ethanol production facilities that produce ethanol by natural fermentation included in North American Industry Classification System codes 325193 or 312140;
  - u. Fossil-fuel boilers, combinations thereof, totaling more than 250 million Btu per hour heat input;
  - v. Petroleum storage and transfer units with a total storage capacity more than 300,000 barrels;
  - w. Taconite preprocessing plants;
  - x. Glass fiber processing plants;
  - y. Charcoal production plants;
  - z. Fossil-fuel-fired steam electric plants and combined cycle gas turbines of more than 250 million Btu per hour heat input.
- 23-25. “CFR” means the *Code of Federal Regulations*, amended as of July 1, 2010, (and no future editions), with standard references in this Chapter by Title and Part, so that “40 CFR 51” means “Title 40 of the *Code of Federal Regulations*, Part 51.”
- 22-26. “Charge” means the addition of metal bearing materials, scrap, or fluxes to a furnace, converter or refining vessel.
- 23-27. “Clean coal technology” means any technology, including technologies applied at the precombustion, combustion, or post-combustion stage, at a new or existing facility that will achieve significant reductions in air emissions of sulfur dioxide or oxides of nitrogen associated with the utilization of coal in the generation of electricity, or process steam, that was not in widespread use as of November 15, 1990.
- 24-28. “Clean coal technology demonstration project” means a project using funds appropriated under the heading “Department of Energy - Clean Coal Technology,” up to a total amount of \$2,500,000,000 for commercial demon-

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stration of clean coal technology or similar projects funded through appropriations for the Environmental Protection Agency. The federal contribution for a qualifying project shall be at least 20% of the total cost of the demonstration project.

- ~~25-29.~~ “Coal” means all solid fossil fuels classified as anthracite, bituminous, subbituminous, or lignite by ASTM D-388-91, (Classification of Coals by Rank).
- ~~26-30.~~ “Combustion” means the burning of matter.
- ~~27-31.~~ “Commence” means, as applied to construction of a source, or a major modification as defined in Article 4 of this Chapter, that the owner or operator has all necessary preconstruction approvals or permits and either has:
- Begin, or caused to begin, a continuous program of actual ~~on-site~~ onsite construction of the source, to be completed within a reasonable time; or
  - Entered into binding agreements or contractual obligations, which cannot be cancelled or modified without substantial loss to the owner or operator, to undertake a program of actual construction of the source to be completed within a reasonable time.
- ~~28-32.~~ “Construction” means any physical change or change in the method of operation, including fabrication, erection, installation, demolition, or modification of an emissions unit, which would result in a change in actual emissions.
- ~~29-33.~~ “Continuous monitoring system” ~~or “continuous emission monitoring system”~~ means ~~the total equipment, required under the emission monitoring provisions in this Chapter, used to sample and, if applicable, to condition, to analyze, and to provide, on a continuous basis, a permanent record of emission or process parameters~~ a CEMS, CERMS, or CPMS.
- ~~34.~~ “Continuous emissions monitoring system” or “CEMS” means ~~the total equipment, required under the emission monitoring provisions in this Chapter, used to sample, condition (if applicable), analyze, and to provide, on a continuous basis, a permanent record of emissions.~~
- ~~35.~~ “Continuous emissions rate monitoring system” or “CERMS” means ~~the total equipment required for the determination and recording of the pollutant mass emissions rate (in terms of mass per unit of time).~~
- ~~36.~~ “Continuous parameter monitoring system” or “CPMS” means ~~the total equipment, required under the emission monitoring provisions in this Chapter, to monitor process or control device operational parameters or other information and to provide, on a continuous basis, a permanent record of monitored values.~~
- ~~30-37.~~ “Controlled atmosphere incinerator” means one or more refractory-lined chambers in which complete combustion is promoted by recirculation of gases by mechanical means.
- ~~38.~~ “Conventional air pollutant” means ~~any pollutant for which the Administrator has promulgated a primary or secondary national ambient air quality standard.~~
- ~~39.~~ “Department” means ~~the Department of Environmental Quality.~~
- ~~40.~~ “Director” means ~~the director of environmental quality who is also the Director of the Department.~~
- ~~34-41.~~ “Discharge” means the release or escape of an effluent from a source into the atmosphere.
- ~~32-42.~~ “Dust” means finely divided solid particulate matter occurring naturally or created by mechanical processing, handling or storage of materials in the solid state.
- ~~33-43.~~ “Dust suppressant” means a chemical compound or mixture of chemical compounds added with or without water to a dust source for purposes of preventing air entrainment.
- ~~34-44.~~ “Effluent” means any air contaminant which is emitted and subsequently escapes into the atmosphere.
- ~~35-45.~~ “Electric utility steam generating unit” means any steam electric generating unit that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW electrical output to any utility power distribution system for sale. Any steam supplied to a steam distribution system for the purpose of providing steam to a steam-electric generator that would produce electrical energy for sale is also considered in determining the electrical energy output capacity of the affected facility.
- ~~36-46.~~ “Emission” means an air contaminant or gas stream, or the act of discharging an air contaminant or a gas stream, visible or invisible.
- ~~37-47.~~ “Emission standard” or “emission limitation” means a requirement established by the state, a local government, or the Administrator which limits the quantity, rate, or concentration of emissions of air pollutants on a continuous basis, including any requirements which limit the level of opacity, prescribe equipment, set fuel specifications, or prescribe operation or maintenance procedures for a source to assure continuous emission reduction.
- ~~38-48.~~ “Emissions unit” means any part of a stationary source which emits or would have the potential to emit any regulated air pollutant and includes an electric steam generating unit.
- ~~39-49.~~ “Equivalent method” means any method of sampling and analyzing for an air pollutant which has been demonstrated under R18-2-311(D) to have a consistent and quantitatively known relationship to the reference method, under specified conditions.
- ~~40-50.~~ “Excess emissions” means emissions of an air pollutant in excess of an emission standard as measured by the compliance test method applicable to such emission standard.
- ~~41.~~ “Existing source” means ~~any source which does not have an applicable new source performance standard under Article 9 of this Chapter.~~



- ~~42-51.~~ “Federal applicable requirement” means any of the following as they apply to emissions units covered by a Class I or II permit (including requirements that have been promulgated or approved by EPA through rulemaking at the time of issuance but have future effective compliance dates):
- Any standard or other requirement provided for in the applicable implementation plan approved or promulgated by EPA through rulemaking under Title I of the Act that implements the relevant requirements of the Act, including any revisions to that plan promulgated in 40 CFR 52.
  - Any term or condition of any preconstruction permits issued pursuant to regulations approved or promulgated through rulemaking under Title I, including ~~parts~~ Parts C or D, of the Act.
  - Any standard or other requirement under ~~Section~~ section 111 of the Act, including ~~Section~~ section 111(d).
  - Any standard or other requirement under ~~Section~~ section 112 of the Act, including any requirement concerning accident prevention under ~~Section~~ section 112(r)(7) of the Act.
  - Any standard or other requirement of the acid rain program under Title IV of the Act or the regulations promulgated thereunder and incorporated pursuant to R18-2-333.
  - Any requirements established pursuant to ~~Section~~ section 504(b) or ~~Section~~ 114(a)(3) of the Act.
  - Any standard or other requirement governing solid waste incineration, under ~~Section~~ section 129 of the Act.
  - Any standard or other requirement for consumer and commercial products, under ~~Section~~ section 183(e) of the Act.
  - Any standard or other requirement for tank vessels under ~~Section~~ section 183(f) of the Act.
  - Any standard or other requirement of the program to control air pollution from outer continental shelf sources, under ~~Section~~ section 328 of the Act.
  - Any standard or other requirement of the regulations promulgated to protect stratospheric ozone under Title VI of the Act, unless the Administrator has determined that such requirements need not be contained in a Title V permit.
  - Any national ambient air quality standard or increment or visibility requirement under Part C of Title I of the Act, but only as it would apply to temporary sources permitted pursuant to ~~Section~~ section 504(e) of the Act.
- ~~43-52.~~ “Federal Land Manager” means, with respect to any lands in the United States, the secretary of the department with authority over such lands.
- ~~44-53.~~ “Federally enforceable” means all limitations and conditions which are enforceable by the Administrator under the Act, including all of the following:
- The requirements of the New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants contained in Articles 9 and 11 of this Chapter;
  - The requirements of such other state or county rules or regulations approved by the Administrator, including the requirements of state and county operating and new source review permit programs that have been approved by the Administrator; Notwithstanding this subsection, the condition of any permit designated as being enforceable only by the state is not federally enforceable.
  - The requirements of any applicable implementation plan;
  - Emissions limitations, controls, and other requirements, and any associated monitoring, recordkeeping, and reporting requirements, other than those designated as enforceable only by the state, which are entered into voluntarily by a source that are included in a permit pursuant to R18-2-306.01.
- ~~54.~~ “Federally listed hazardous air pollutant” means a pollutant listed pursuant to R18-2-1701(9).
- ~~45-55.~~ “Final permit” means the version of a permit issued by the Department after completion of all review required by this Chapter.
- ~~46-56.~~ “Fixed capital cost” means the capital needed to provide all the depreciable components.
- ~~47-57.~~ “Fuel” means any material which is burned for the purpose of producing energy.
- ~~48-58.~~ “Fuel burning equipment” means any machine, equipment, incinerator, device or other article, except stationary rotating machinery, in which combustion takes place.
- ~~49-59.~~ “Fugitive emissions” means those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening
- ~~50-60.~~ “Fume” means solid particulate matter resulting from the condensation and subsequent solidification of vapors of melted solid materials.
- ~~51-61.~~ “Fume incinerator” means a device similar to an afterburner installed for the purpose of incinerating fumes, gases and other finely divided combustible particulate matter not previously burned.
- ~~52-62.~~ “Good engineering practice (GEP) stack height” means a stack height meeting the requirements described in R18-2-332.
- ~~63.~~ “Hazardous air pollutant” means any federally listed hazardous air pollutant.
- ~~53-64.~~ “Heat input” means the quantity of heat in terms of ~~Btu’s~~ Btu generated by fuels fed into the fuel burning equipment under conditions of complete combustion.
- ~~54-65.~~ “Incinerator” means any equipment, machine, device, contrivance or other article, and all appurtenances thereof, used for the combustion of refuse, salvage materials or any other combustible material except fossil fuels, for the pur-

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pose of reducing the volume of material.

- 55-66. "Indian governing body" means the governing body of any tribe, band, or group of Indians subject to the jurisdiction of the United States and recognized by the United States as possessing power of self-government.
- 56-67. "Indian reservation" means any federally recognized reservation established by Treaty, Agreement, Executive Order, or Act of Congress.
- 57-68. "Insignificant activity" means any of the following activities an activity in an emissions unit that is not otherwise subject to any applicable requirement and which belongs to one of the following categories:
- a. ~~Landscaping, building maintenance, or janitorial activities.~~
  - a. Liquid Storage and Piping
    - i. Petroleum product storage tanks containing the following substances, provided the applicant lists and identifies the contents of each tank with a volume of 350 gallons or more and provides threshold values for throughput or capacity or both for each such tank: diesel fuels and fuel oil in storage tanks with capacity of 40,000 gallons or less, lubricating oil, transformer oil, and used oil.
    - ~~b-ii.~~ Gasoline storage tanks with capacity of 10,000 gallons or less.
    - e. Diesel and fuel oil storage tanks with capacity of 40,000 gallons or less.
    - iii. Storage and piping of natural gas, butane, propane, or liquified petroleum gas, provided the applicant lists and identifies the contents of each stationary storage vessel with a volume of 350 gallons or more and provides threshold values for throughput or capacity or both for each such vessel.
    - iv. Piping of fuel oils, used oil and transformer oil, provided the applicant includes a system description.
    - v. Storage and handling of drums or other transportable containers where the containers are sealed during storage, and covered during loading and unloading, including containers of RCRA waste and used oil. Permit applicants must provide a description of material in the containers and the approximate amount stored.
    - vi. Storage tanks of any size containing exclusively soaps, detergents, waxes, greases, aqueous salt solutions, aqueous solutions of acids that are not regulated air pollutants, or aqueous caustic solutions, provided the permit applicant specifies the contents of each storage tank with a volume of 350 gallons or more.
    - vii. Electrical transformer oil pumping, cleaning, filtering, drying and the re-installation of oil back into transformers.
  - b. Internal combustion engine-driven compressors, internal combustion engine-driven electrical generator sets, and internal combustion engine-driven water pumps used for less than 500 hours per calendar year for emergency replacement or standby service, provided the permittee keeps records documenting the hours of operation of this equipment.
  - c. Low Emitting Processes
    - ~~d-i.~~ Batch mixers with rated capacity of 5 cubic feet or less.
    - e-ii. Wet sand and gravel production facilities that obtain material from subterranean and subaqueous beds, whose production rate is 200 tons/hour or less, and whose permanent in-plant roads are paved and cleaned to control dust. This does not include activities in emissions units which are used to crush or grind any non-metallic minerals.
  - f. ~~Hand held or manually operated equipment used for buffing, polishing, carving, cutting, drilling, machining, routing, sanding, sawing, surface grinding, or turning of ceramic art work, precision parts, leather, metals, plastics, fiberboard, masonry, carbon, glass, or wood.~~
  - ~~g-iii.~~ Powder coating operations.
  - h. ~~Internal combustion (IC) engine driven compressors, IC engine driven electrical generator sets, and IC engine driven water pumps used only for emergency replacement or standby service.~~
  - i. ~~Lab equipment used exclusively for chemical and physical analyses.~~
  - j. ~~Any other activity which the Director determines is not necessary, because of its emissions due to size or production rate, to be included in an application in order to determine all applicable requirements and to calculate any fee under this Chapter.~~
    - iv. Equipment using water, water and soap or detergent, or a suspension of abrasives in water for purposes of cleaning or finishing.
    - v. Blast-cleaning equipment using a suspension of abrasive in water and any exhaust system or collector serving them exclusively.
    - vi. Plastic pipe welding.
  - d. Site Maintenance
    - i. Housekeeping activities and associated products used for cleaning purposes, including collecting spilled and accumulated materials at the source, including operation of fixed vacuum cleaning systems specifically for such purposes.
    - ii. Sanding of streets and roads to abate traffic hazards caused by ice and snow.
    - iii. Street and parking lot striping.
    - iv. Architectural painting and associated surface preparation for maintenance purposes at industrial or commer-

- cial facilities.
- e. Sampling and Testing
  - i. Noncommercial (in-house) experimental, analytical laboratory equipment which is bench scale in nature, including quality control/quality assurance laboratories supporting a stationary source and research and development laboratories.
  - ii. Individual sampling points, analyzers, and process instrumentation, whose operation may result in emissions but that are not regulated as emission units.
- f. Ancillary Non-Industrial Activities
  - i. General office activities, such as paper shredding, copying, photographic activities, and blueprinting, but not to include incineration.
  - ii. Use of consumer products, including hazardous substances as that term is defined in the Federal Hazardous Substances Act (15 U.S.C. 1261 et seq.) where the product is used at a source in the same manner as normal consumer use.
  - iii. Activities directly used in the diagnosis and treatment of disease, injury or other medical condition.
- g. Miscellaneous Activities
  - i. Installation and operation of potable, process and waste water observation wells, including drilling, pumping, filtering apparatus.
  - ii. Transformer vents.

58-69. "Kraft pulp mill" means any stationary source which produces pulp from wood by cooking or digesting wood chips in a water solution of sodium hydroxide and sodium sulfide at high temperature and pressure. Regeneration of the cooking chemicals through a recovery process is also considered part of the kraft pulp mill.

59-70. "Lead" means elemental lead or alloys in which the predominant component is lead.

60-71. "Lime hydrator" means a unit used to produce hydrated lime product.

61-72. "Lime plant" includes any plant which produces a lime product from limestone by calcination. Hydration of the lime product is also considered to be part of the source.

62-73. "Lime product" means any product produced by the calcination of limestone.

63-74. "Major modification" is defined as follows:

- a. A major modification means is any physical change in or change in the method of operation of a major source that would result in both a significant emissions increase of any regulated NSR pollutant and a significant net emissions increase of any regulated air pollutant, that pollutant from the stationary source.
- b. Any emissions increase or net emissions increase that is significant for nitrogen oxides or volatile organic compounds is significant for ozone.
- b. Any net emissions increase that is significant for oxides of nitrogen is significant for ozone for ozone nonattainment areas classified as marginal, moderate, serious, or severe.
- c. For the purposes of this definition, none of the following are not is a physical change or change in the method of operation:
  - i. Routine maintenance, repair, and replacement;
  - ii. Use of an alternative fuel or raw material by reason of an order under ~~Section~~ sections 2(a) and (b) of the Energy Supply and Environmental Coordination Act of 1974, 15 U.S.C. 792, or by reason of a natural gas curtailment plan under the Federal Power Act, 16 U.S.C. 792 - 825r;
  - iii. Use of an alternative fuel by reason of an order or rule under ~~Section~~ section 125 of the Act;
  - iv. Use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste;
  - v. Use of an alternative fuel or raw material by a stationary source that either:
    - (1) The source was capable of accommodating before December 12, 1976, unless the change would be prohibited under any federally enforceable permit condition established after December 12, 1976, under 40 CFR 52.21, or under Articles 3 or 4 of this Chapter; or
    - (2) The source is approved to use under any permit issued under 40 CFR 52.21, or under Articles 3 or 4 of this Chapter;
  - vi. An increase in the hours of operation or in the production rate, unless the change would be prohibited under any federally enforceable permit condition established after December 12, 1976, under 40 CFR 52.21, or under Articles 3 or 4 of this Chapter;
  - vii. Any change in ownership at a stationary source;
  - viii. [Reserved.] The addition, replacement, or use of a pollution control project at an existing electric utility steam generating unit, unless the Director determines that the addition, replacement, or use renders the unit less environmentally beneficial, or except:
    - (1) When the Director has reason to believe that the pollution control project would result in a significant net increase in representative actual annual emissions of any criteria pollutant over levels used for that source in the most recent Title I air quality impact analysis in the area, if any, and

- (2) The Director determines that the increase will cause or contribute to a violation of any national ambient air quality standard or PSD increment, or visibility limitation;
- ix. The installation, operation, cessation, or removal of a temporary clean coal technology demonstration project, if the project complies with:
- (1) The SIP, and
  - (2) Other requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated;
- x. For electric utility steam generating units located in attainment and unclassifiable areas only, the installation or operation of a permanent clean coal technology demonstration project that constitutes repowering, if the project does not result in an increase in the potential to emit any regulated pollutant emitted by the unit. This exemption applies on a pollutant-by-pollutant basis; and
- xi. For electric utility steam generating units located in attainment and unclassifiable areas only, the reactivation of a very clean coal-fired electric utility steam generating unit.
- d. This definition shall not apply with respect to a particular regulated NSR pollutant when the major source is complying with the requirements of R18-2-412 for a PAL for that regulated NSR pollutant. Instead, the definition of PAL major modification shall apply.
- 64.75. "Major source" means:
- a. A major source as defined in R18-2-401.
  - b. A major source under ~~Section section~~ 112 of the Act:
    - i. For pollutants other than radionuclides, any stationary source that emits or has the potential to emit, in the aggregate, including fugitive emission 10 tons per year (tpy) or more of any hazardous air pollutant which has been listed pursuant to ~~Section section~~ 112(b) of the Act, 25 tpy or more of any combination of such hazardous air pollutants, or such lesser quantity as described in Article 11 of this Chapter. Notwithstanding the preceding sentence, emissions from any oil or gas exploration or production well (with its associated equipment) and emissions from any pipeline compressor or pump station shall not be aggregated with emissions from other similar units, whether or not such units are in a contiguous area or under common control, to determine whether such units or stations are major sources; or
    - ii. For radionuclides, "major source" shall have the meaning specified by the Administrator by rule.
  - c. A major stationary source, as defined in ~~Section section~~ 302 of the Act, that directly emits or has the potential to emit, 100 tpy or more of any air pollutant including any major source of fugitive emissions of any such pollutant. The fugitive emissions of a stationary source shall not be considered in determining whether it is a major stationary source for the purposes of ~~Section section~~ 302(j) of the Act, unless the source belongs to a section 302(j) category, one of the following categories of stationary source:
    - i. ~~Coal cleaning plants (with thermal dryers).~~
    - ii. ~~Kraft pulp mills.~~
    - iii. ~~Portland cement plants.~~
    - iv. ~~Primary zinc smelters.~~
    - v. ~~Iron and steel mills.~~
    - vi. ~~Primary aluminum ore reduction plants.~~
    - vii. ~~Primary copper smelters.~~
    - viii. ~~Municipal incinerators capable of charging more than 50 tons of refuse per day.~~
    - ix. ~~Hydrofluoric, sulfuric, or nitric acid plants.~~
    - x. ~~Petroleum refineries.~~
    - xi. ~~Lime plants.~~
    - xii. ~~Phosphate rock processing plants.~~
    - xiii. ~~Coke oven batteries.~~
    - xiv. ~~Sulfur recovery plants.~~
    - xv. ~~Carbon black plants (furnace process).~~
    - xvi. ~~Primary lead smelters.~~
    - xvii. ~~Fuel conversion plants.~~
    - xviii. ~~Sintering plants.~~
    - xix. ~~Secondary metal production plants.~~
    - xx. ~~Chemical process plants.~~
    - xxi. ~~Fossil fuel boilers (or combination thereof) totaling more than 250 million British thermal units per hour heat input.~~
    - xxii. ~~Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels.~~
    - xxiii. ~~Taconite ore processing plants.~~
    - xxiv. ~~Glass fiber processing plants.~~
    - xxv. ~~Charcoal production plants.~~

~~xxvi. Fossil-fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input.~~

~~xxvii. Any other stationary source category, which as of August 7, 1980, is being regulated under Section 111 or 112 of the Act.~~

- ~~65-76. "Malfunction" means any sudden and unavoidable failure of air pollution control equipment, process equipment or a process to operate in a normal and usual manner, but does not include failures that are caused by poor maintenance, careless operation or any other upset condition or equipment breakdown which could have been prevented by the exercise of reasonable care.~~
- ~~66-77. "Minor source" means a source of air pollution which is not a major source for the purposes of Article 4 of this Chapter and over which the Director, acting pursuant to A.R.S. § 49-402(B), has asserted jurisdiction.~~
- ~~67-78. "Minor source baseline area" means the air quality control region in which the source is located.~~
- ~~79. "Mobile source" means any combustion engine, device, machine or equipment that operates during transport and that emits or generates air contaminants whether in motion or at rest.~~
- ~~80. "Modification" or "modify" means a physical change in or change in the method of operation of a source that increases the emissions of any regulated air pollutant emitted by such source by more than any relevant de minimis amount or that results in the emission of any regulated air pollutant not previously emitted by more than such de minimis amount. An increase in emissions at a minor source shall be determined by comparing the source's potential to emit before and after the modification. The following exemptions apply:~~
- ~~a. A physical or operational change does not include routine maintenance, repair or replacement.~~
  - ~~b. An increase in the hours of operation or if the production rate is not considered an operational change unless such increase is prohibited under any federally enforceable permit condition or other permit condition that is enforceable as a practical matter.~~
  - ~~c. A change in ownership at a source is not considered a modification.~~
- ~~68-81. "Monitoring device" means the total equipment, required under the applicable provisions of this Chapter, used to measure and record, if applicable, process parameters.~~
- ~~69-82. "Motor vehicle" means any self-propelled vehicle designed for transporting persons or property on public highways.~~
- ~~70-83. "Multiple chamber incinerator" means three or more refractory-lined combustion chambers in series, physically separated by refractory walls and interconnected by gas passage ports or ducts.~~
- ~~71-84. "Natural conditions" includes naturally occurring phenomena that reduce visibility as measured in terms of light extinction, visual range, contrast, or coloration.~~
- ~~85. "National ambient air quality standard" means the ambient air pollutant concentration limits established by the administrator pursuant to section 109 of the Act.~~
- ~~72-86. "Necessary preconstruction approvals or permits" means those permits or approvals required under the Act and those air quality control laws and rules which are part of the SIP.~~
- ~~73-87. "Net emissions increase" means:~~
- ~~a. The amount by which the sum of subsections ~~(69)(a)(i)~~ (87)(a)(i) and (ii) exceeds zero:~~
    - ~~i. Any The increase in actual emissions of a regulated NSR pollutant from a particular physical change or change in the method of operation at a stationary source as calculated pursuant to R18-2-402(D); and~~
    - ~~ii. Any other increases and decreases in actual emissions of the regulated NSR pollutant at the source that are contemporaneous with the particular change and are otherwise creditable.~~
    - ~~iii. For purposes of calculating increases and decreases in actual emissions under subsection (87)(a)(ii), baseline actual emissions shall be determined as provided in the definition of "baseline actual emissions" in R18-2-401(2), except that R18-2-401(2)(a)(iii) and (b)(iv) shall not apply.~~
  - ~~b. An increase or decrease in actual emissions is contemporaneous with the increase from the particular change only if it occurs between:~~
    - ~~i. The date five years before construction on the particular change commences; and~~
    - ~~ii. The date that the increase from the particular change occurs.~~
  - ~~c. An increase or decrease in actual emissions is creditable only if the Director has not relied on it in issuing a permit, which is in effect when the increase in actual emissions from the particular change occurs. In addition, in nonattainment areas, a decrease in actual emissions shall be considered in determining net emissions increase due to modifications only if the state has not relied on it in demonstrating attainment or reasonable further progress.~~
  - ~~d. An increase or decrease in actual emissions of sulfur dioxide, nitrogen oxides, or PM<sub>10</sub> which occurs before the applicable baseline date, as described in R18-2-218, is creditable only if it is required to be considered in calculating the amount of maximum allowable increases remaining available.~~
  - ~~e. An increase in actual emissions is creditable only to the extent that the new level of actual emissions exceeds the old level.~~
  - ~~f. A decrease in actual emissions is creditable only to the extent that it satisfies all of the following conditions:~~
    - ~~i. The old level of actual emissions or the old level of allowable emissions, whichever is lower, exceeds the~~

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- new level of actual emissions;
  - ii. It is ~~federally~~ enforceable as a practical matter at and after the time that actual construction on the particular change begins;
  - iii. It has approximately the same qualitative significance for public health and welfare as that attributed to the increase from the particular change; ~~and~~
  - iv. The emissions unit was actually operated and emitted the specific pollutant.
  - v. For a source located in an area designated as nonattainment for the regulated NSR pollutant, the Director has not relied on it in issuing any permit under Article 4 or R18-2-334, and the state has not relied on it in demonstrating attainment or reasonable further progress.
- g. An increase that results from a physical change at a source occurs when the emissions unit on which construction occurred becomes operational and begins to emit a particular pollutant. Any ~~replacement unit that requires shakedown~~ emissions unit that replaces an existing emissions unit and that requires shakedown becomes operational only after a reasonable shakedown period, not to exceed 180 days.
- 74-88. “New source” means any stationary source of air pollution which is subject to an applicable new source performance standard under Article 9 of this Chapter.
- 75-89. “Nitric acid plant” means any facility producing nitric acid 30% to 70% in strength by either the pressure or atmospheric pressure process.
- 76-90. “Nitrogen oxides” means all oxides of nitrogen except nitrous oxide, as measured by test methods set forth in the Appendices to 40 CFR 60.
- 77-91. “Nonattainment area” means an area so designated by the Administrator acting pursuant to ~~Section~~ section 107 of the Act as exceeding national primary or secondary ambient air standards for a particular pollutant or pollutants.
- 78-92. “Nonpoint source” means a source of air contaminants which lacks an identifiable plume or emission point.
- 79-93. “Opacity” means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.
- 80-94. “Operation” means any physical or chemical action resulting in the change in location, form, physical properties, or chemical character of a material.
- 81-95. “Owner or operator” means any person who owns, leases, operates, controls, or supervises an affected facility or a stationary source ~~of which an affected facility is a part.~~
- 82-96. “Particulate matter” means any airborne finely divided solid or liquid material with an aerodynamic diameter smaller than 100 micrometers.
- 83-97. “Particulate matter emissions” means all finely divided solid or liquid materials other than uncombined water, emitted to the ambient air as measured by applicable test methods and procedures described in R18-2-311.
98. “Permitting authority” means the Department or a county department or agency that is charged with enforcing a permit program adopted pursuant to A.R.S. § 49-480(A).
99. “Permitting exemption thresholds” for a regulated minor NSR pollutant means the following:
- | <u>Regulated Air Pollutant</u>  | <u>Emission Rate in tons per year (TPY)</u> |
|---|---|
| <u>PM<sub>2.5</sub> (primary emissions only; levels for precursors are set below)</u> | <u>5</u>                                    |
| <u>PM<sub>10</sub></u>  | <u>7.5</u>                                  |
| <u>SO<sub>2</sub></u>   | <u>20</u>                                   |
| <u>NO<sub>x</sub></u>   | <u>20</u>                                   |
| <u>VOC</u>  | <u>20</u>                                   |
| <u>CO</u>   | <u>50</u>                                   |
| <u>Pb</u>   | <u>0.3</u>                                  |
100. “Person” means any public or private corporation, company, partnership, firm, association or society of persons, the federal government and any of its departments or agencies, the state and any of its agencies, departments or political subdivisions, as well as a natural person.
101. “Planning agency” means an organization designated by the governor pursuant to 42 U.S.C. 7504.
- 84-102. “Predictive Emissions Monitoring System” or “PEMS” means the total equipment, required under the emission monitoring provisions in this Chapter, to monitor process and control device operational parameters and other information, and calculate and record the mass emissions rate on a continuous basis.
84. “Pollution control project” means any activity or project undertaken at an existing electric utility steam generating unit to reduce emissions from the unit. The activities or projects are limited to:
- a. The installation of conventional or innovative pollution control technology, including advanced flue gas desulfurization, sorbent injection for sulfur dioxide and nitrogen oxides controls, and electrostatic precipitators;
  - b. An activity or project to accommodate switching to a fuel less polluting than the fuel used before the activity or

- project, including natural gas or coal reburning, or the co-firing of natural gas and other fuels for the purpose of controlling emissions;
- e. ~~A permanent clean coal technology demonstration project conducted under Title II, section 101(d) of the Further Continuing Appropriations Act of 1985 (42 U.S.C. 5903(d), or subsequent appropriations, up to a total amount of \$2,500,000,000 for commercial demonstration of clean coal technology, or similar projects funded through appropriations for the Environmental Protection Agency, or~~
- d. ~~A permanent clean coal technology demonstration project that constitutes a repowering project.~~
- 85-103. "PM<sub>2.5</sub>" means particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers as measured by a reference method based on 40 CFR 50, Appendix L, or by an equivalent method designated according to 40 CFR 53.
- 86-104. "PM<sub>10</sub>" means particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by a reference method contained within 40 CFR 50, Appendix J or by an equivalent method designated in accordance with 40 CFR 53.
- 87-105. "PM<sub>10</sub> emissions" means finely divided solid or liquid material, with an aerodynamic diameter less than or equal to a nominal 10 micrometers emitted to the ambient air as measured by applicable test methods and procedures described in R18-2-311.
- 88-106. "Plume" means visible effluent.
- 89-107. "Pollutant" means an air contaminant the emission or ambient concentration of which is regulated pursuant to this Chapter.
- 90-108. "Portable source" means any building, structure, facility, or installation subject to regulation pursuant to A.R.S. § 49-426 which emits or may emit any air pollutant and is capable of being operated at more than one location.
- 94-109. "Potential to emit" or "potential emission rate" means the maximum capacity of a stationary source to emit a pollutant, excluding secondary emissions, under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is ~~federally~~ enforceable as a practical matter.
- 92-110. "Primary ambient air quality standards" means the ambient air quality standards which define levels of air quality necessary, with an adequate margin of safety, to protect the public health, as specified in Article 2 of this Chapter.
- 93-111. "Process" means one or more operations, including equipment and technology, used in the production of goods or services or the control of by-products or waste.
112. "Project" means a physical change in, or change in the method of operation of, an existing major source.
- 94-113. "Proposed permit" means the version of a permit for which the Director offers public participation under R18-2-330 or affected state review under R18-2-307(D).
- 95-114. "Proposed final permit" means the version of a Class I permit or Class I permit revision that the Department proposes to issue and forwards to the Administrator for review in compliance with R18-2-307(A).
- 96-115. "Reactivation of a very clean coal-fired electric utility steam generating unit" means any physical change or change in the method of operation associated with commencing commercial operations by a coal-fired utility unit after a period of discontinued operation if the unit:
- Has not been in operation for the two-year period before enactment of the Clean Air Act Amendments of 1990, and the emissions from the unit continue to be carried in the Director's emissions inventory at the time of enactment;
  - Was equipped before shutdown with a continuous system of emissions control that achieves a removal efficiency for sulfur dioxide of no less than 85% and a removal efficiency for particulates of no less than 98%;
  - Is equipped with low-NOx burners before commencement of operations following reactivation; and
  - Is otherwise in compliance with the Act.
116. "Reasonable further progress" means the schedule of emission reductions defined within a nonattainment area plan as being necessary to come into compliance with a national ambient air quality standard by the primary standard attainment date.
117. "Reasonably available control technology" (RACT) means devices, systems, process modifications, work practices or other apparatus or techniques that are determined by the Director to be reasonably available taking into account:
- The necessity of imposing the controls in order to attain and maintain a national ambient air quality standard;
  - The social, environmental, energy and economic impact of the controls;
  - Control technology in use by similar sources; and
  - The capital and operating costs and technical feasibility of the controls.
- 97-118. "Reclaiming machinery" means any machine, equipment device or other article used for picking up stored granular material and either depositing this material on a conveyor or reintroducing this material into the process.
- 98-119. "Reference method" means the methods of sampling and analyzing for an air pollutant as described in the Arizona Testing Manual; 40 CFR 50, Appendices A through K; 40 CFR 51, Appendix M; 40 CFR 52, Appendices D and E; 40 CFR 60, Appendices A through F; and 40 CFR 61, Appendices B and C, as incorporated by reference in 18

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A.A.C. 2, Appendix 2.

~~99-~~120. "Regulated air pollutant" means any of the following:

- a. Any conventional air pollutant as defined in A.R.S. § 49-401.01.
- b. Nitrogen oxides and volatile organic compounds.
- c. Any air contaminant that is subject to a standard contained in Article 9 of this Chapter.
- d. Any hazardous air pollutant as defined in Article 17 of this Chapter.
- e. Any Class I or II substance listed in ~~Section~~ section 602 of the Act.

121. "Regulated minor NSR pollutant" means any pollutant for which a national ambient air quality standard has been promulgated and the following precursors for such pollutants:

- a. VOC and nitrogen oxides as precursors to ozone.
- b. Nitrogen oxides and sulfur dioxide as precursors to PM<sub>2.5</sub>.

122. "Regulated NSR pollutant" means any of the following:

- a. Any pollutant for which a national ambient air quality standard has been promulgated and any pollutant identified under this subsection as a constituent or precursor to such pollutant. Precursors for purposes of NSR are the following:
  - i. Volatile organic compounds and nitrogen oxides are precursors to ozone in all areas.
  - ii. Sulfur dioxide is a precursor to PM<sub>2.5</sub> in all areas.
  - iii. Nitrogen oxides are precursors to PM<sub>2.5</sub> in all areas.
- b. Any pollutant that is subject to any standard promulgated under Article 9 of this Chapter.
- c. Any Class I or II substance subject to a standard promulgated under or established by Title VI of the Act as of July 1, 2010.
- d. [Reserved.]
- e. Notwithstanding subsections (122)(a) through (d), the term regulated NSR pollutant shall not include any or all hazardous air pollutants listed under R18-2-1101, unless the listed hazardous air pollutant is also regulated as a constituent or precursor of a general pollutant listed under section 108 of the Act as of July 1, 2010.
- f. Particulate matter emissions, PM<sub>2.5</sub> emissions, and PM<sub>10</sub> emissions shall include gaseous emissions from a source or activity which condense to form particulate matter at ambient temperatures. On and after January 1, 2011, condensable particulate matter shall be accounted for in applicability determinations and in establishing emissions limitations for particulate matter, PM<sub>2.5</sub> and PM<sub>10</sub> in permits issued under Article 4.

~~100-~~123. "Repowering" means:

- a. Replacing an existing coal-fired boiler with one of the following clean coal technologies:
  - i. Atmospheric or pressurized fluidized bed combustion;
  - ii. Integrated gasification combined cycle;
  - iii. Magnetohydrodynamics;
  - iv. Direct and indirect coal-fired turbines;
  - v. Integrated gasification fuel cells; or
  - vi. As determined by the Administrator, in consultation with the United States Secretary of Energy, a derivative of one or more of the above technologies; and
  - vii. Any other technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of November 15, 1990.
- b. Repowering also includes any oil, gas, or oil and gas-fired unit that has been awarded clean coal technology demonstration funding as of January 1, 1991, by the United States Department of Energy.
- c. The Director shall give expedited consideration to permit applications for any source that satisfies the requirements of this subsection (and) is granted an extension under section 409 of the Act.

~~101.~~ "Representative actual annual emissions" means the average rate, in tons per year, at which a source is projected to emit a pollutant for the 2-year period after a physical change or change in the method of operation of a unit, (or a different consecutive 2-year period within 10 years after that change, if the Director determines that the different period is more representative of source operations), considering the effect the change will have on increasing or decreasing the hourly emissions rate and on projected capacity utilization. In projecting future emissions the Director shall:

- a. ~~Consider all relevant information, including historical operational data, the company's representations, filings with Arizona or federal regulatory authorities, and compliance plans under Title IV of the Act; and~~
- b. ~~Exclude, in calculating any increase in emissions that results from the particular physical change or change in the method of operation at an electric utility steam generating unit, that portion of the unit's emissions following the change that could have been accommodated during the representative baseline period and is attributable to an increase in projected capacity utilization at the unit unrelated to the particular change, including any increased utilization due to the rate of electricity demand growth for the utility system as a whole.~~

~~102-~~124. "Run" means the net period of time during which an emission sample is collected, which may be, unless otherwise specified, either intermittent or continuous within the limits of good engineering practice.



125. "SCREEN model" means the AERSCREEN air dispersion model published by the Administrator in April 2011 and available on the Support Center for Regulatory Atmospheric Modeling web site: <http://www.epa.gov/ttn/scram>.

~~103-126.~~ "Secondary ambient air quality standards" means the ambient air quality standards which define levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant, as specified in Article 2 of this Chapter.

~~104-127.~~ "Secondary emissions" means emissions which are specific, well defined, quantifiable, occur as a result of the construction or operation of a major source or major modification, but do not come from the major source or major modification itself, and impact the same general area as the stationary source or modification which causes the secondary emissions. Secondary emissions include emissions from any offsite support facility which would not otherwise be constructed or increase its emissions as a result of the construction or operation of the major source or major modification. Secondary emissions do not include any emissions which come directly from a mobile source, such as emissions from the tailpipe of a motor vehicle, from a train, or from a vessel.

128. "Section 302(j) category" means:

- a. Any of the classes of sources listed in the definition of "categorical source"; or
- b. Any category of affected facility which, as of August 7, 1980, is being regulated under section 111 or 112 of the Act.

~~105-129.~~ "Shutdown" means the cessation of operation of any air pollution control equipment or process equipment for any purpose, except routine phasing out of process equipment.

~~106-130.~~ "Significant" means, in reference to a significant emissions increase, a net emissions increase or a stationary source's potential to emit a regulated NSR pollutant:

- a. ~~In reference to a net emissions increase or the potential of a source to emit any of the following pollutants, a~~ rate of emissions that would equal or exceed any of the following rates:

| <b>Pollutant</b>  | <b>Emissions Rate</b>   |
|---|---|
| Carbon monoxide   | 100 tons per year (tpy)   |
| Nitrogen oxides   | 40 tpy  |
| Sulfur dioxide  | 40 tpy  |
| Particulate matter  | 25 tpy  |
| PM <sub>10</sub>  | 15 tpy  |
| PM <sub>2.5</sub>   | <u>10 tpy of direct PM<sub>2.5</sub> emissions; 40 tpy of sulfur dioxide emissions; 40 tpy of nitrogen oxide emissions unless demonstrated not to be a PM<sub>2.5</sub> precursor under subsection (122)(a)(iii), the definition of regulated NSR pollutant</u> |
| VOC   | 40 tpy  |
| Lead  | 0.6 tpy   |
| Fluorides   | 3 tpy   |
| Sulfuric acid mist  | 7 tpy   |
| Hydrogen sulfide (H <sub>2</sub> S)   | 10 tpy  |
| Total reduced sulfur (including H <sub>2</sub> S)   | 10 tpy  |
| Reduced sulfur compounds (including H <sub>2</sub> S)   | 10 tpy  |
| Municipal waste combustor organics (measured as total tetra-through octa-chlorinated dibenzo-p-dioxins and dibenzofurans) | 3.5 x 10 <sup>-6</sup> tpy  |
| Municipal waste combustor metals (measured as particulate matter)   | 15 tpy  |
| Municipal waste combustor acid gases (measured as sulfur dioxide and hydrogen chloride)                                   | 40 tpy  |
| Municipal solid waste landfill emissions (measured as nonmethane organic compounds)                                       | 50 tpy  |

- b. In ozone nonattainment areas classified as serious or severe, significant emissions of nitrogen oxides and VOC

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shall be determined under R18-2-405.

c. In a carbon monoxide nonattainment area classified as serious, a rate of emissions that would equal or exceed 50 tons per year, if the Administrator has determined that stationary sources contribute significantly to carbon monoxide levels in that area.

e-d. For a regulated air NSR pollutant that is not listed in subsection (130)(a) ~~(a)~~, ~~is not a Class I or II substance listed in Section 602 of the Act, and is not a hazardous air pollutant according to Article 17 of this Chapter,~~ any emission rate.

d-e. Notwithstanding the emission ~~amount~~ rates listed in subsection (130)(a) ~~(a)~~, any emissions rate or any net emissions increase associated with a major source or major modification, which would be constructed within 10 kilometers of a Class I area and have an impact on the ambient air quality of such area equal to or greater than 1 µg/m<sup>3</sup> (24-hour average).

131. “Significant emissions increase” means, for a regulated NSR pollutant, an increase in emissions that is significant as defined in this Section for that pollutant.

~~107-132.~~ “Smoke” means particulate matter resulting from incomplete combustion.

133. “Source” means any building, structure, facility or installation that may cause or contribute to air pollution or the use of which may eliminate, reduce or control the emission of air pollution.

~~108-134.~~ “Stack” means any point in a source designed to emit solids, liquids, or gases into the air, including a pipe or duct but not including flares.

~~109-135.~~ “Stack in existence” means that the owner or operator had either:

- a. Begun, or caused to begin, a continuous program of physical ~~on-site~~ onsite construction of the stack;
- b. Entered into binding agreements or contractual obligations, which could not be cancelled or modified without substantial loss to the owner or operator, to undertake a program of construction of the stack to be completed in a reasonable time.

~~110-136.~~ “Start-up” means the setting into operation of any air pollution control equipment or process equipment for any purpose except routine phasing in of process equipment.

~~111-137.~~ “State implementation plan” (SIP) or “SIP” means ~~the plan adopted by the state of Arizona which provides for implementation, maintenance, and enforcement of such primary and secondary ambient air quality standards as are adopted by the Administrator, pursuant to the Act~~ the accumulated record of enforceable air pollution control measures, programs and plans adopted by the Director and submitted to and approved by the Administrator pursuant to 42 U.S.C. 7410.

~~112-138.~~ “Stationary rotating machinery” means any gas engine, diesel engine, gas turbine, or oil fired turbine operated from a stationary mounting and used for the production of electric power or for the direct drive of other equipment.

~~113-139.~~ “Stationary source” means any building, structure, facility or installation subject to regulation pursuant to A.R.S. § 49-426(A) which emits or may emit any air pollutant. “Building,” “structure,” “facility,” or “installation” means all of the pollutant-emitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person or persons under common control. Pollutant-emitting activities shall be considered as part of the same industrial grouping if they belong to the same “Major Group” as described in the “Standard Industrial Classification Manual, 1987.”

~~114-140.~~ “Sulfuric acid plant” means any facility producing sulfuric acid by the contact process by burning elemental sulfur, alkylation acid, hydrogen sulfide, or acid sludge, but does not include facilities where conversion to sulfuric acid is utilized as a means of preventing emissions of sulfur dioxide or other sulfur compounds to the atmosphere.

~~115-141.~~ “Temporary clean coal technology demonstration project” means a clean coal technology demonstration project operated for five years or less, and that complies with the ~~SIP~~ applicable implementation plan and other requirements necessary to attain and maintain the national ambient air quality standards during the project and after the project is terminated.

~~116-142.~~ “Temporary source” means a source which is portable, as defined in A.R.S. § 49-401.01(23) and which is not an affected source.

~~117-143.~~ “Total reduced sulfur” (TRS) means the sum of the sulfur compounds, primarily hydrogen sulfide, methyl mercaptan, dimethyl sulfide, and dimethyl disulfide, that are released during kraft pulping and other operations and measured by Method 16 in 40 CFR 60, Appendix A.

~~118.~~ “Total suspended particulate” (TSP) means ~~particulate matter as measured by the reference method described in 40 CFR 50, Appendix B, plus any particulate matter from fugitive emissions quantified by methods approved by the Director.~~

~~119-144.~~ “Trivial activities” means activities and emissions units, such as the following, that may be omitted from a ~~Class I or Class II~~ Class I or Class II permit or registration application. Certain of the following listed activities include qualifying statements intended to exclude similar activities:

- a. ~~Combustion emissions from propulsion of mobile sources;~~
- b. ~~Air conditioning units used for human comfort that do not have applicable requirements under title VI of the Act;~~
- e. ~~Ventilating units used for human comfort that do not exhaust air pollutants into the ambient air from any manu-~~

- facturing, industrial or commercial process;
- d. Non-commercial food preparation;
- e. Janitorial services and consumer use of janitorial products;
- f. Internal combustion engines used for landscaping purposes;
- g. Laundry activities, except for dry-cleaning and steam boilers;
- h. Bathroom and toilet vent emissions;
- i. Emergency or backup electrical generators at residential locations;
- j. Tobacco smoking rooms and areas;
- k. Blacksmith forges;
- l. Plant maintenance and upkeep activities, including grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots, if these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and do not otherwise trigger a permit revision. Cleaning and painting activities qualify as trivial activities if they are not subject to VOC or hazardous air pollutant (HAP) control requirements;
- m. Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating, de-greasing, or solvent metal-cleaning activities, and not otherwise triggering a permit revision;
- n. Portable electrical generators that can be moved by hand from one location to another. "Moved by hand" means capable of being moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device;
- o. Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning, or machining wood, metal, or plastic;
- p. Brazing, soldering, and welding equipment, and cutting torches related to manufacturing and construction activities that do not result in emission of HAP metals. Brazing, soldering, and welding equipment, and cutting torches related to manufacturing and construction activities that emit HAP metals are insignificant activities based on size or production level thresholds. Brazing, soldering, and welding equipment, and cutting torches directly related to plant maintenance and upkeep and repair or maintenance shop activities that emit HAP metals are treated as trivial and listed separately in this definition;
- q. Air compressors and pneumatically operated equipment, including hand tools;
- r. Batteries and battery charging stations, except at battery manufacturing plants;
- s. Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP;
- t. Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, if appropriate lids and covers are used;
- u. Equipment used to mix and package soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, if appropriate lids and covers are used;
- v. Drop hammers or hydraulic presses for forging or metalworking;
- w. Equipment used exclusively to slaughter animals, not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment;
- x. Vents from continuous emissions monitors and other analyzers;
- y. Natural gas pressure regulator vents, excluding venting at oil and gas production facilities;
- z. Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation;
- aa. Equipment used for surface coating, painting, dipping, or spraying operations, except those that will emit VOC or HAP;
- bb. CO(2) lasers used only on metals and other materials that do not emit HAP in the process;
- ee. Electric or steam heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam;
- dd. Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants;
- ee. Laser trimmers using dust collection to prevent fugitive emissions;
- ff. Bench-scale laboratory equipment used for physical or chemical analysis, but not laboratory fume hoods or vents;
- gg. Routine calibration and maintenance of laboratory equipment or other analytical instruments;
- hh. Equipment used for quality control, quality assurance, or inspection purposes, including sampling equipment used to withdraw materials for analysis;
- ii. Hydraulic and hydrostatic testing equipment;
- jj. Environmental chambers not using HAP gases;
- kk. Shock chambers;
- ll. Humidity chambers;
- mm. Solar simulators;
- nn. Fugitive emissions related to movement of passenger vehicles, if the emissions are not counted for applicability

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purposes under R18-2-101(64)(c) and any required fugitive dust control plan or its equivalent is submitted with the application;

- ~~oo.~~ Process water filtration systems and demineralizers;
- ~~pp.~~ Demineralized water tanks and demineralizer vents;
- ~~qq.~~ Oxygen scavenging or de-aeration of water;
- ~~rr.~~ Ozone generators;
- ~~ss.~~ Fire suppression systems;
- ~~tt.~~ Emergency road flares;
- ~~uu.~~ Steam vents and safety relief valves;
- ~~ww.~~ Steam leaks; and
- ~~xx.~~ Steam cleaning operations and steam sterilizers.
- a. Low-Emitting Combustion
  - i. Combustion emissions from propulsion of mobile sources;
  - ii. Emergency or backup electrical generators at residential locations;
  - iii. Portable electrical generators that can be moved by hand from one location to another. "Moved by hand" means capable of being moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device;
- b. Low- Or Non-Emitting Industrial Activities
  - i. Blacksmith forges;
  - ii. Hand-held or manually operated equipment used for buffing, polishing, carving, cutting, drilling, sawing, grinding, turning, routing or machining of ceramic art work, precision parts, leather, metals, plastics, fiber-board, masonry, carbon, glass, or wood;
  - iii. Brazing, soldering, and welding equipment, and cutting torches related to manufacturing and construction activities that do not result in emission of HAP metals. Brazing, soldering, and welding equipment, and cutting torches related to manufacturing and construction activities that emit HAP metals are insignificant activities based on size or production level thresholds. Brazing, soldering, and welding equipment, and cutting torches directly related to plant maintenance and upkeep and repair or maintenance shop activities that emit HAP metals are treated as trivial and listed separately in this definition;
  - iv. Drop hammers or hydraulic presses for forging or metalworking;
  - v. Air compressors and pneumatically operated equipment, including hand tools;
  - vi. Batteries and battery charging stations, except at battery manufacturing plants;
  - vii. Drop hammers or hydraulic presses for forging or metalworking;
  - viii. Equipment used exclusively to slaughter animals, not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment;
  - ix. Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation;
  - x. Equipment used for surface coating, painting, dipping, or spraying operations, except those that will emit VOC or HAP;
  - xi. CO<sub>2</sub> lasers used only on metals and other materials that do not emit HAP in the process;
  - xii. Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam;
  - xiii. Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants;
  - xiv. Laser trimmers using dust collection to prevent fugitive emissions;
  - xv. Process water filtration systems and demineralizers;
  - xvi. Demineralized water tanks and demineralizer vents;
  - xvii. Oxygen scavenging or de-aeration of water;
  - xviii. Ozone generators;
  - xix. Steam vents and safety relief valves;
  - xx. Steam leaks; and
  - xxi. Steam cleaning operations and steam sterilizers;
  - xxii. Use of vacuum trucks and high pressure washer/cleaning equipment within the stationary source boundaries for cleanup and in-source transfer of liquids and slurried solids to waste water treatment units or conveyances;
  - xxiii. Equipment using water, water and soap or detergent, or a suspension of abrasives in water for purposes of cleaning or finishing.
  - xxiv. Electric motors.
- c. Building and Site Maintenance Activities
  - i. Plant and building maintenance and upkeep activities, including grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots, if these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activ-

- ity, and do not otherwise trigger a permit revision. Cleaning and painting activities qualify as trivial activities if they are not subject to VOC or hazardous air pollutant (HAP) control requirements;
- ii. Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating, de-greasing, or solvent metal cleaning activities, and not otherwise triggering a permit revision;
  - iii. Janitorial services and consumer use of janitorial products;
  - iv. Landscaping activities;
  - v. Routine calibration and maintenance of laboratory equipment or other analytical instruments;
  - vi. Sanding of streets and roads to abate traffic hazards caused by ice and snow.
  - vii. Street and parking lot striping.
  - viii. Caulking operations which are not part of a production process.
- d. Incidental, Non-Industrial Activities
- i. Air-conditioning units used for human comfort that do not have applicable requirements under Title VI of the Act;
  - ii. Ventilating units used for human comfort that do not exhaust air pollutants into the ambient air from any manufacturing, industrial or commercial process;
  - iii. Tobacco smoking rooms and areas;
  - iv. Non-commercial food preparation;
  - v. General office activities, such as paper shredding, copying, photographic activities, pencil sharpening and blueprinting, but not including incineration;
  - vi. Laundry activities, except for dry-cleaning and steam boilers;
  - vii. Bathroom and toilet vent emissions;
  - viii. Fugitive emissions related to movement of passenger vehicles, if the emissions are not counted for applicability purposes under subsection (144)(c) of the definition of major source in this Section and any required fugitive dust control plan or its equivalent is submitted with the application;
  - ix. Use of consumer products, including hazardous substances as that term is defined in the Federal Hazardous Substances Act (15 U.S.C. 1261 et. seq.) where the product is used at a source in the same manner as normal consumer use;
  - x. Activities directly used in the diagnosis and treatment of disease, injury or other medical condition.
  - xi. Circuit breakers.
  - xii. Adhesive use which is not related to production.
- e. Storage, Piping and Packaging
- i. Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP;
  - ii. Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, if appropriate lids and covers are used;
  - iii. Chemical storage associated with water and wastewater treatment where the water is treated for consumption and/or use within the permitted facility;
  - iv. Chemical storage associated with water and wastewater treatment where the water is treated for consumption and/or use within the permitted facility;
  - v. Storage cabinets for flammable products;
  - vi. Natural gas pressure regulator vents, excluding venting at oil and gas production facilities;
  - vii. Equipment used to mix and package soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, if appropriate lids and covers are used;
- f. Sampling and Testing
- i. Vents from continuous emissions monitors and other analyzers;
  - ii. Bench-scale laboratory equipment used for physical or chemical analysis, but not laboratory fume hoods or vents;
  - iii. Equipment used for quality control, quality assurance, or inspection purposes, including sampling equipment used to withdraw materials for analysis;
  - iv. Hydraulic and hydrostatic testing equipment;
  - v. Environmental chambers not using HAP gases;
  - vi. Soil gas sampling;
  - vii. Individual sampling points, analyzers, and process instrumentation, whose operation may result in emissions but that are not regulated as emission units;
- g. Safety Activities
- i. Fire suppression systems.
  - ii. Emergency road flares;
- h. Miscellaneous Activities

- i. Shock chambers.
  - ii. Humidity chambers.
  - iii. Solar simulators.
  - iv. Cathodic protection systems.
  - v. High voltage induced corona, and
  - vi. Filter draining.
- ~~120-145.~~ “Unclassified area” means an area which the Administrator, because of a lack of adequate data, is unable to classify as an attainment or nonattainment area for a specific pollutant, and which, for purposes of this Chapter, is treated as an attainment area.
- ~~121-146.~~ “Uncombined water” means condensed water containing analytical trace amounts of other chemical elements or compounds.
- ~~122-147.~~ “Urban or suburban open area” means an unsubdivided tract of land surrounding a substantial urban development of a residential, industrial, or commercial nature and which, though near or within the limits of a city or town, may be uncultivated, used for agriculture, or lie fallow.
- ~~123-148.~~ “Vacant lot” means a subdivided residential or commercial lot which contains no buildings or structures of a temporary or permanent nature.
- ~~124-149.~~ “Vapor” means the gaseous form of a substance normally occurring in a liquid or solid state.
- ~~125-150.~~ “Visibility impairment” means any humanly perceptible change in visibility (light extinction, visual range, contrast, coloration) from that which would have existed under natural conditions.
- ~~126-151.~~ “Visible emissions” means any emissions which are visually detectable without the aid of instruments and which contain particulate matter.
- ~~127-152.~~ “Volatile organic compounds” or “VOC (VOC)” means any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, that participates in atmospheric photochemical reactions. This includes any such organic compound other than the following:
- a. Methane;
  - b. Ethane;
  - c. Methylene chloride (dichloromethane);
  - d. 1,1,1-trichloroethane (methyl chloroform);
  - e. 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113);
  - f. Trichlorofluoromethane (CFC-11);
  - g. Dichlorodifluoromethane (CFC-12);
  - h. Chlorodifluoromethane (HCFC-22);
  - i. Trifluoromethane (HFC-23);
  - j. 1,2-dichloro 1,1,2,2-tetrafluoroethane (CFC-114);
  - k. Chloropentafluoroethane (CFC-115);
  - l. 1,1,1-trifluoro 2,2-dichloroethane (HCFC-123);
  - m. 1,1,1,2-tetrafluoroethane (HFC-134a);
  - n. 1,1-dichloro 1-fluoroethane (HCFC-141b);
  - o. 1-chloro 1,1-difluoroethane (HCFC-142b);
  - p. 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124);
  - q. Pentafluoroethane (HFC-125);
  - r. 1,1,2,2-tetrafluoroethane (HFC-134);
  - s. 1,1,1-trifluoroethane (HFC-143a);
  - t. 1,1-difluoroethane (HFC-152a);
  - u. Parachlorobenzotrifluoride (PCBTF);
  - v. Cyclic, branched, or linear completely methylated siloxanes;
  - w. Acetone;
  - x. Perchloroethylene (tetrachloroethylene);
  - y. 3,3-dichloro-1,1,1,2,2-pentafluoropropane (HCFC-225ca);
  - z. 1,3-dichloro-1,1,2,2,3-pentafluoropropane (HCFC-225cb);
  - aa. 1,1,1,2,3,4,4,5,5,5-decafluoropentane (HFC 43-10mee);
  - bb. Difluoromethane (HFC-32);
  - cc. Ethylfluoride (HFC-161);
  - dd. 1,1,1,3,3,3-hexafluoropropane (HFC-236fa);
  - ee. 1,1,2,2,3-pentafluoropropane (HFC-245ca);
  - ff. 1,1,2,3,3-pentafluoropropane (HFC-245ea);
  - gg. 1,1,1,2,3-pentafluoropropane (HFC-245eb);
  - hh. 1,1,1,3,3-pentafluoropropane (HFC-245fa);
  - ii. 1,1,1,2,3,3-hexafluoropropane (HFC-236ea);

- jj. 1,1,1,3,3-pentafluorobutane (HFC-365mfc);
- kk. Chlorofluoromethane (HCFC-31);
- ll. 1 chloro-1-fluoroethane (HCFC-151a);
- mm. 1,2-dichloro-1,1,2-trifluoroethane (HCFC-123a);
- nn. 1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxy-butane (C<sub>4</sub>F<sub>9</sub>OCH<sub>3</sub>);
- oo. 2-(difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane ((CF<sub>3</sub>)<sub>2</sub>CF<sub>2</sub>OCH<sub>3</sub>);
- pp. 1-ethoxy-1,1,2,2,3,3,4,4-nonafluorobutane (C<sub>4</sub>F<sub>9</sub>OC<sub>2</sub>H<sub>5</sub>);
- qq. 2-(ethoxydifluoromethyl)-1,1,1,2,3,3,3-heptafluoropropane ((CF<sub>3</sub>)<sub>2</sub>CF<sub>2</sub>OC<sub>2</sub>H<sub>5</sub>);
- rr. Methyl acetate; and
- ss. 1,1,1,2,2,3,3-heptafluoro-3-methoxypropane (n-C<sub>3</sub>F<sub>7</sub>OCH<sub>3</sub>, HFE—7000);
- tt. 3-ethoxy-1,1,1,2,3,4,4,5,5,6,6,6-dodecafluoro-2-(trifluoromethyl) hexane (HFE – 7500);
- uu. 1,1,1,2,3,3,3-hentafluoropropane (HFC 227ea); and
- vv. Methyl formate (HCOOCH<sub>3</sub>); and
- ww. Perfluorocarbon compounds that fall into these classes:
  - i. Cyclic, branched, or linear, completely fluorinated alkanes.
  - ii. Cyclic, branched, or linear, completely fluorinated ethers with no unsaturations.
  - iii. Cycle, branched, or linear, completely fluorinated tertiary amines with no unsaturations; or
  - iv. Sulfur containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.
- xx. The following compound is VOC for purposes of all recordkeeping, emissions reporting, photochemical dispersion modeling and inventory requirements which apply to VOC and shall be uniquely identified in emission reports, but are not VOC for purposes of VOC emissions limitations or VOC content requirements: t-butyl acetate.

~~128-153.~~ “Wood waste burner” means an incinerator designed and used exclusively for the burning of wood wastes consisting of wood slabs, scraps, shavings, barks, sawdust or other wood material, including those that generate steam as a by-product.

**R18-2-102. Incorporated Materials**

The following documents are incorporated by reference and are on file with the Office of the Secretary of State and the Department:

1. Sections 1 and 7 of the The Department’s “Arizona Testing Manual for Air Pollutant Emissions,” amended as of March 1992 (and no future editions).
2. All ASTM test methods referenced in this Chapter as of the year specified in the reference (and no future amendments). They are available from the American Society for Testing and Materials, 1916 Race St., Philadelphia, PA 19103-1187.
3. The U.S. Government Printing Office’s “Standard Industrial Classification Manual, 1987” (and no future editions).

**ARTICLE 2. AMBIENT AIR QUALITY STANDARDS; AREA DESIGNATIONS; CLASSIFICATIONS**

**R18-2-201. Particulate ~~matter~~ Matter: PM<sub>10</sub> and PM<sub>2.5</sub>**

**A. PM<sub>10</sub> Standards**

1. ~~The level of the primary and secondary ambient air quality standards for PM<sub>10</sub> are is:~~
  - ~~a. 50 micrograms per cubic meter of PM<sub>10</sub> — annual arithmetic mean concentration.~~
  - ~~b. 150 micrograms per cubic meter of PM<sub>10</sub> — 24-hour average concentration.~~
2. ~~The secondary ambient air quality standards for PM<sub>10</sub> are:~~
  - ~~a. 50 micrograms per cubic meter of PM<sub>10</sub> — annual arithmetic mean concentration.~~
  - ~~b. 150 micrograms per cubic meter of PM<sub>10</sub> — 24-hour average concentration.~~
- ~~3-2.~~ To determine attainment of the primary and secondary standards, a person shall measure PM<sub>10</sub> in the ambient air by:
  - a. A reference method based on 40 CFR 50, Appendix J, and designated according to 40 CFR 53; or
  - b. An equivalent method designated according to 40 CFR 53.
4. ~~The primary and secondary annual ambient air quality standards for PM<sub>10</sub> are attained when the expected annual arithmetic mean concentration, determined according to 40 CFR 50, Appendix K, is less than or equal to 50 micrograms per cubic meter.~~
- ~~5-3.~~ The primary and secondary 24-hour ambient air quality standards for PM<sub>10</sub> are attained when the expected number of days per calendar year with a 24-hour average concentration above 150 micrograms per cubic meter, determined according to 40 CFR 50, Appendix K, is less than or equal to 1 one.

**B. PM<sub>2.5</sub> Standards**

1. The primary ambient air quality standards for PM<sub>2.5</sub> are:
  - a. 15 micrograms per cubic meter of PM<sub>2.5</sub> – annual arithmetic mean concentration.
  - b. ~~65~~ 35 micrograms per cubic meter of PM<sub>2.5</sub> – 24-hour average concentration.
2. The secondary ambient air quality standards for PM<sub>2.5</sub> are:

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- a. 15 micrograms per cubic meter of PM<sub>2.5</sub> – annual arithmetic mean concentration.
- b. ~~65~~ 35 micrograms per cubic meter of PM<sub>2.5</sub> – 24-hour average concentration.
- 3. To determine attainment of the primary and secondary standards, a person shall measure PM<sub>2.5</sub> in the ambient air by:
  - a. A reference method based on 40 CFR 50, Appendix L, and designated according to 40 CFR 53; or
  - b. An equivalent method designated according to 40 CFR 53.
- 4. The primary and secondary annual ambient air quality standards for PM<sub>2.5</sub> are met when the annual arithmetic mean concentration, determined according to 40 CFR 50, Appendix N, is less than or equal to 15 micrograms per cubic meter.
- 5. The primary and secondary 24-hour ambient air quality standards for PM<sub>2.5</sub> are met when the 98th percentile 24-hour concentration, determined according to 40 CFR 50, Appendix N, is less than or equal to ~~65~~ 35 micrograms per cubic meter.

**R18-2-202. Sulfur ~~oxides (sulfur dioxide)~~ Oxides (Sulfur Dioxide)**

- A. The primary ambient air quality standards for sulfur oxides, measured as sulfur dioxide, are:
  - 1. 0.03 parts per million (ppm) (80 g/m<sup>3</sup>) – annual arithmetic mean.
  - 2. 0.14 parts per million (ppm) (365 g/m<sup>3</sup>) – maximum 24-hour concentration not to be exceeded more than once per calendar year.
  - 3. 75 parts per billion (ppb) – maximum one-hour concentration. The one-hour primary standard is met at an ambient air quality monitoring site when the three-year average of the annual 99th percentile of the daily maximum one-hour average concentrations is less than or equal to 75 parts per billion, as determined according to 40 CFR 50, Appendix T.
- B. The secondary ambient air quality standard for sulfur oxides, measured as sulfur dioxide, is 0.5 parts per million (ppm) (1300 g/m<sup>3</sup>) -- maximum three-hour concentration not to be exceeded more than once per year.
- C. The level of the standards shall be measured by a reference method based on 40 CFR, Appendix A or A-1, or by a federal Equivalent Method designated according to part 53 of this chapter.
- D. The standards in subsections (A)(1) and (2) shall apply:
  - 1. In an area designated nonattainment for a standard in subsection (A)(1) or (2) as of August 23, 2010, and areas not meeting a state implementation plan call for a standard in subsection (A)(1) or (2), until the state submits pursuant to section 191 of the Act, and the Administrator approves, a state implementation plan providing for attainment the standard in subsection (A)(3) in that area.
  - 2. In areas other than those identified in subsection (D)(1), until the effective date of the designation of that area, pursuant to section 107 of the Act, for the standard in subsection (A)(3)

**R18-2-203. Ozone: ~~1-hour standard and 8-hour averaged standard~~ One-hour Standard and Eight-hour Averaged Standard**

- A. ~~1-hour~~ One-hour standard. Until June 15, 2005:
  - 1. The ~~1-hour~~ one-hour primary ambient air quality standard for ozone is 0.12 ppm (235 micrograms per cubic meter).
  - 2. The ~~1-hour~~ one-hour secondary ambient air quality standard for ozone is 0.12 ppm (235 micrograms per cubic meter).
  - 3. The ~~1-hour~~ one-hour standards are attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm (235 micrograms per cubic meter) is less than or equal to ~~1~~ one, determined by 40 CFR 50, Appendix H.
- B. ~~8-hour~~ Eight-hour averaged standard.
  - 1. The ~~8-hour averaged~~ eight-hour average primary ambient air quality standard for ozone is ~~0.08~~ 0.075 ppm.
  - 2. The ~~8-hour averaged~~ eight-hour average secondary ambient air quality standard for ozone is ~~0.08~~ 0.075 ppm.
  - 3. To determine attainment of the primary and secondary standards, a person shall measure ozone in the ambient air by:
    - a. A reference method based on 40 CFR 50, Appendix D, and designated according to 40 CFR 53; or
    - b. An equivalent method designated according to 40 CFR 53.
  - ~~3-4~~ 8-hour Eight-hour averaged primary and secondary ambient air quality standards for ozone are met at an ambient air quality monitoring site when the three-year average of the annual fourth highest daily maximum ~~8-hour~~ eight-hour average ozone concentration is less than or equal to ~~0.08~~ 0.075 ppm, determined according to 40 CFR 50, Appendix ~~F~~ P.

**R18-2-205. Nitrogen ~~dioxide~~ Oxides (Nitrogen Dioxide)**

- A. The primary ambient air quality ~~standard standards~~ for ~~nitrogen dioxide is .053 parts per million (100 micrograms per cubic meter) – annual arithmetic mean~~ oxides of nitrogen, measured in the ambient air as nitrogen dioxide, are:
  - 1. 53 parts per billion – annual average concentration.
  - 2. 100 parts per billion – one-hour average concentration.
- B. The secondary ambient air quality standard for nitrogen dioxide is 0.053 ~~(parts per million (100 micrograms per cubic meter) – annual arithmetic mean.~~
- C. The levels of the standards shall be measured by a reference method based on 40 CFR 50, Appendix F or a federal equiv-



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alent method designated in accordance with 40 CFR 53.

- D.** The annual primary standard is met when the annual average concentration in a calendar year is less than or equal to 53 ppb, as determined in accordance with 40 CFR, Appendix S for the annual standard.
- E.** The one-hour primary standard is met when the three-year average of the annual 98th percentile of the daily maximum one-hour average concentration is less than or equal to 100 parts per billion, as determined in accordance with 40 CFR 50, Appendix S.
- E.** The secondary standards are is attained when the annual arithmetic mean concentration in a calendar year is less than or equal to 0.053 ppm, rounded to three decimal places, with fractional parts equal to or greater than 0.0005 ppm rounded up. To demonstrate attainment, an annual mean shall be based upon hourly data that is at ~~last~~ least 75% complete or upon data derived from the manual methods, that is at least 75% complete for the scheduled sampling days in each calendar quarter.

**R18-2-206. Lead**

- A.** The primary ambient air quality standard for lead and its compounds, measured as elemental lead, is ~~1.5~~ 0.15 micrograms per cubic meter -- maximum arithmetic mean averaged over a ~~calendar quarter~~ three-month period.
- B.** The secondary ambient air quality standard for lead and its compounds, measured as elemental lead, is ~~1.5~~ 0.15 micrograms per cubic meter -- maximum arithmetic mean averaged over a ~~calendar quarter~~ three-month period.
- C.** The level of the standards shall be measured by a reference method based on 40 CFR 50, Appendix G and designated in accordance with 40 CFR 53, or by an equivalent designated in accordance with part 53 of this chapter.
- D.** The national primary and secondary ambient air quality standards for Pb are met when the maximum arithmetic three-month mean concentration for a three-year period, as determined in accordance with 40 CFR 50, Appendix R, is less than or equal to 0.15 micrograms per cubic meter.
- E.** The former primary and secondary ambient air quality standards for lead of 1.5 micrograms per cubic meter averaged over a calendar quarter shall apply to an area until one year after the effective date of the designation of that area, pursuant to section 107 of the Act, for the standards in subsections (A) and (B).

**R18-2-210. Attainment, Nonattainment, and Unclassifiable Area Designations**

40 CFR 81.303 as amended as of July 1, ~~2006~~ 2010 (and no future amendments or editions) is incorporated by reference as an applicable requirement and on file with the Department of Environmental Quality. 40 CFR 81.303 is available from the U.S. Government Printing Office, Superintendent of Documents, Mail Stop SSOP, Washington, D.C. 20402-9328.

**R18-2-218. Limitation of Pollutants in Classified Attainment Areas**

- A.** Areas designated as Class I, II, or III shall be limited to the following increases in air pollutant concentrations occurring over the baseline concentration; provided that for any period other than an annual period, the applicable maximum allowable increase may be exceeded once per year at any one location:

CLASS I

Maximum Allowable  
Increase (Micrograms  
per cubic meter)

Particulate matter: PM<sub>2.5</sub>

|                               |          |
|-------------------------------|----------|
| <u>Annual arithmetic mean</u> | <u>1</u> |
| <u>24-hr maximum</u>          | <u>2</u> |

Particulate matter: PM<sub>10</sub>

|                        |   |
|------------------------|---|
| Annual arithmetic mean | 4 |
| 24-hour maximum        | 8 |

Sulfur dioxide:

|                        |    |
|------------------------|----|
| Annual arithmetic mean | 2  |
| 24-hour maximum        | 5  |
| 3-hour maximum         | 25 |

Nitrogen dioxide:

|                        |     |
|------------------------|-----|
| Annual arithmetic mean | 2.5 |
|------------------------|-----|

CLASS II

Particulate matter: PM<sub>2.5</sub>

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|                                      |     |
|--------------------------------------|-----|
| <u>Annual arithmetic mean</u>        | 4   |
| <u>24-hr maximum</u>                 | 9   |
| Particulate matter: PM <sub>10</sub> |     |
| Annual arithmetic mean               | 17  |
| 24-hour maximum                      | 30  |
| Sulfur dioxide:                      |     |
| Annual arithmetic mean               | 20  |
| 24-hour maximum                      | 91  |
| 3-hour maximum                       | 512 |
| Nitrogen dioxide:                    |     |
| Annual arithmetic mean               | 25  |

CLASS III

|   |     |
|---|-----|
| Particulate matter: <u>PM<sub>2.5</sub></u> |     |
| <u>Annual arithmetic mean</u>               | 8   |
| <u>24-hr maximum</u>                        | 18  |
| Particulate matter: PM <sub>10</sub>        |     |
| Annual arithmetic mean                      | 34  |
| 24-hour maximum                             | 60  |
| Sulfur dioxide:                             |     |
| Annual arithmetic mean                      | 40  |
| 24-hour maximum                             | 182 |
| 3-hour maximum                              | 700 |
| Nitrogen dioxide:                           |     |
| Annual arithmetic mean                      | 50  |

- B.** The baseline concentration shall be that ambient concentration level which exists in the baseline area at the time of the applicable minor source baseline data.
1. The major source baseline date is:
    - a. January 6, 1975, for sulfur dioxide and ~~particulate matter~~PM<sub>10.5</sub> ~~and~~
    - b. February 8, 1988, for nitrogen dioxide.
    - c. October 20, 2010, for PM<sub>2.5</sub>.
  2. The minor source baseline date shall be the earliest date after ~~August 7, 1977, for sulfur dioxide and particulate matter, and February 8, 1988, for nitrogen dioxide, that either:~~
    - a. ~~A major source as defined in R18-2-401 or a major modification submits a complete permit application to the Administrator under 40 CFR 52.21; or~~
    - b. ~~A major source as defined in R18-2-401 or a major modification submits a complete permit application to the Director under R18-2-304(E)(2) or R18-2-406; the trigger date on which a major source as defined in R18-2-401 or major modification subject to 40 CFR 52.21 or R18-2-406 submits a complete application under the relevant regulations. The trigger date is:~~
      - a. August 7, 1977, for PM<sub>10</sub> and sulfur dioxide.
      - b. February 8, 1988, for nitrogen dioxide.
      - c. October 20, 2011, for PM<sub>2.5</sub>.
  3. A baseline concentration shall be determined for each pollutant for which there is a minor source baseline date and shall include both:
    - a. The actual emissions representative of sources in existence on the minor source baseline date, except as provided in subsection (B)(4); and
    - b. The allowable emissions of major sources as defined in R18-2-401 which commenced construction before the major source baseline date but were not in operation by the applicable minor source baseline date.
  4. The following shall not be included in the baseline concentration and shall affect the applicable maximum allowable

increase:

- a. Actual emissions from any major source as defined in R18-2-401 on which construction commenced after the major source baseline date; and
  - b. Actual emissions increases and decreases at any stationary source occurring after the minor source baseline date.
- C. The baseline date shall be established for each pollutant for which maximum allowable increases or other equivalent measures have been established if both:
1. The area in which the proposed source or modification would construct is designated as attainment or unclassifiable under section 107(d)(1)(A)(ii) or (iii) of the Act for the pollutant on the date of its complete application under ~~either subsection (B)(2)(a) or (b) 40 CFR 52.21 or R18-2-406~~; and
  2. In the case of a major source as defined in R18-2-401, the pollutant would be emitted in significant amounts, or in the case of a major modification, there would be a significant net emissions increase of the pollutant.
- D. The baseline area shall be the AQCR that contains the area, designated as attainment or unclassifiable under section 107(d)(1)(A)(ii) or (iii) of the Act, in which the major source as defined in R18-2-401 or a major modification establishing the minor source baseline date would construct or would have an air quality impact ~~equal to or greater than 1 ug/m<sup>3</sup> (annual average) of~~ for the pollutant for which the minor source baseline date is established, as follows: greater than or equal to 1 microgram per cubic meter (annual average) for sulfur dioxide, nitrogen dioxide or PM<sub>10</sub>; or greater than or equal to 0.3 microgram per cubic meter (annual average) for PM<sub>2.5</sub>. Area redesignations under R18-2-217 that would redesignate a baseline area ~~cannot~~ may not intersect or be smaller than the area of impact of any new major source as defined in R18-2-401 or a major modification which either:
1. Establishes a minor source baseline date; or
  2. Is subject to either 40 CFR 52.21 or R18-2-406 and would be constructed in Arizona.
- E. The maximum allowable concentration of any air pollutant in any area to which subsection (A) applies shall not exceed a concentration for each pollutant equal to the concentration permitted under the ambient air quality standards contained in this Article.
- F. For purposes of determining compliance with the maximum allowable increases in ambient concentrations of an air pollutant, the following concentrations of such pollutant shall not be taken into account:
1. Concentration of such pollutant attributable to the increase in emissions from major and stationary sources which have converted from the use of petroleum products, or natural gas, or both, by reason of a natural gas curtailment order which is in effect under the provisions of ~~Sections~~ sections 2(a) and (b) of the Energy Supply and Environmental Coordination Act of 1974, 15 U.S.C. 792, over the emissions from such sources before the effective date of such order;
  2. The concentration of such pollutant attributable to the increase in emissions from major and stationary sources which have converted from using gas by reason of a natural gas curtailment plan in effect pursuant to the Federal Power Act, 16 U.S.C. 792 - 825r, over the emissions from such sources before the effective date of the natural gas curtailment plan;
  3. Concentrations of PM<sub>10</sub> attributable to the increase in emissions from construction or other temporary activities of a new or modified source;
  4. The increase in concentrations attributable to new sources outside the United States over the concentrations attributable to existing sources which are included in the baseline concentration; and
  5. Concentrations attributable to the temporary increase in emissions of sulfur dioxide, nitrogen oxides, or PM<sub>10</sub> from major sources as defined in R18-2-401 when the following conditions are met:
    - a. The operating permit issued to such sources specifies the time period during which the temporary emissions increase of sulfur dioxide, nitrogen oxides, or PM<sub>10</sub> would occur. Such time period shall not be renewable and shall not exceed two years unless a longer period is specifically approved by the Director.
    - b. No emissions increase shall be approved which would either:
      - i. Impact any portion of any Class I area or any portion of any other area where an applicable incremental ambient standard is known to be violated in that portion; or
      - ii. Cause or contribute to the violation of a state ambient air quality standard.
    - c. The operating permit issued to such sources specifies that, at the end of the time period described in subsection (F)(5)(a), the emissions levels from the sources would not exceed the levels occurring before the temporary emissions increase was approved.
  6. The exception granted with respect to increment consumption under subsections (F)(1) and (2) shall not apply more than five years after the effective date of the order or natural gas curtailment plan on which the exception is based.
- G. If the Director or the Administrator determines that the SIP is substantially inadequate to prevent significant deterioration or that an applicable maximum allowable increase as specified in subsection (A) is being violated, the SIP shall be revised to correct the inadequacy or the violation. The SIP shall be revised within 60 days of such a finding by the Director or within 60 days following notification by the Administrator, or by such later date as prescribed by the Administrator after consultation with the Director.
- H. The Director shall review the adequacy of the SIP on a periodic basis and within 60 days of such time as information

becomes available that an applicable maximum allowable increase is being violated.

**R18-2-219. Violations Repealed**

- ~~A. One exceedance per year of the ambient air quality standards prescribed in this Article shall be allowed for each pollutant at each monitoring site.~~
- ~~B. Each additional exceedance at each site shall constitute a violation of ambient air quality standards.~~
- ~~C. The provisions of subsection (A) shall not apply to any of the following:
  - 1. The annual and quarterly standards.
  - 2. The standards for ozone prescribed in R18-2-203.
  - 3. The primary and secondary 24-hour PM<sub>10</sub> standards prescribed in R18-2-201.~~

**ARTICLE 3. PERMITS AND PERMIT REVISIONS**

**R18-2-301. Definitions**

The following definitions, ~~and the definitions contained in Article 1 of this chapter and A.R.S. § 49-401.04~~ apply to this Article ~~unless the context otherwise requires:~~

1. "Alternative method" means any method of sampling and analyzing for an air pollutant which is not a reference or equivalent method but which has been demonstrated to produce results adequate for the Director's determination of compliance in accordance with R18-2-311(D).
2. "Billable permit action" means the issuance or denial of a new permit, significant permit revision, or minor permit revision, or the renewal of an existing permit.
3. "Capacity factor" means the ratio of the average load on a machine or equipment for the period of time considered to the capacity rating of the machine or equipment.
4. "CEM" means a continuous emission monitoring system as defined in R18-2-101.
5. "Complete" means, in reference to an application for a permit, permit revision or registration, that the application contains all the information necessary for processing the application. Designating an application complete for purposes of a permit, permit revisions or registration processing does not preclude the Director from requesting or accepting any additional information.
6. "Dispersion technique" means any technique which attempts to affect the concentration of a pollutant in the ambient air by any of the following:
  - a. Using that portion of a stack which exceeds good engineering practice stack height;
  - b. Varying the rate of emission of a pollutant according to atmospheric conditions or ambient concentrations of that pollutant; or
  - c. Increasing final exhaust gas plume rise by manipulating source process parameters, exhaust gas parameters, stack parameters, or combining exhaust gases from several existing stacks into one stack; or other selective handling of exhaust gas streams so as to increase the exhaust gas plume rise. This shall not include any of the following:
    - i. The reheating of a gas stream, following use of a pollution control system, for the purpose of returning the gas to the temperature at which it was originally discharged from the facility generating the gas stream.
    - ii. The merging of exhaust gas streams under any of the following conditions:
      - (1) The source owner or operator demonstrates that the facility was originally designed and constructed with such merged gas streams;
      - (2) After July 8, 1985, such merging is part of a change in operation at the facility that includes the installation of pollution controls and is accompanied by a net reduction in the allowable emissions of a pollutant, applying only to the emission limitation for that pollutant; or
      - (3) Before July 8, 1985, such merging was part of a change in operation at the facility that included the installation of emissions control equipment or was carried out for sound economic or engineering reasons. Where there was an increase in the emission limitation or, in the event that no emission limitation was in existence prior to the merging, an increase in the quantity of pollutants actually emitted prior to the merging, the reviewing agency shall presume that merging was significantly motivated by an intent to gain emissions credit for greater dispersion. Absent a demonstration by the source owner or operator that merging was not significantly motivated by such intent, the reviewing agency shall deny credit for the effects of such merging in calculating the allowable emissions for the source.
    - iii. Smoke management in agricultural or silvicultural prescribed burning programs.
    - iv. Episodic restrictions on residential woodburning and open burning.
    - v. Techniques which increase final exhaust gas plume rise where the resulting allowable emissions of sulfur dioxide from the facility do not exceed 5,000 tons per year.
7. "Emissions allowable under the permit" means a permit term or condition determined at issuance to be required by an applicable requirement that establishes an emissions limit (including a work practice standard) or an emissions cap that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject.

8. "Fossil fuel-fired steam generator" means a furnace or boiler used in the process of burning fossil fuel for the primary purpose of producing steam by heat transfer.
9. "Fuel oil" means Number 2 through Number 6 fuel oils as specified in ASTM D-396-90a (Specification for Fuel Oils), gas turbine fuel oils Numbers 2-GT through 4-GT as specified in ASTM D-2880-90a (Specification for Gas Turbine Fuel Oils), or diesel fuel oils Numbers 2-D and 4-D as specified in ASTM D-975-90a (Specification for Diesel Fuel Oils).
10. "Itemized bill" means a breakdown of the permit processing time into the categories of pre-application activities, completeness review, substantive review, and public involvement activities, and within each category, a further breakdown by employee name.
11. "Major source threshold" means the lowest applicable emissions rate for a pollutant that would cause the source to be a major source at the particular time and location, under ~~R18-2-101(64)~~ the definition of major source in R18-2-101.
12. "Minor NSR Modification" means any of the following changes that do not qualify as a major source or major modification:
  - a. Any physical change in or change in the method of operation of an emission unit or a stationary source that either:
    - i. Increases the potential to emit of a regulated minor NSR pollutant by an amount greater than the permitting exemption thresholds, or
    - ii. Results in emissions of a regulated minor NSR pollutant not previously emitted by such emission unit or stationary source in an amount greater than the permitting exemption thresholds.
  - b. Construction of one or more new emissions units that have the potential to emit regulated minor NSR pollutants at an amount greater than the permitting exemption threshold.
  - c. A change covered by subsection (12)(a) or (b) of this Section constitutes a minor NSR modification regardless of whether there will be a net decrease in total source emissions or a net increase in total source emissions that is less than the permitting exemption threshold as a result of decreases in the potential to emit of other emission units at the same stationary source.
  - d. For the purposes of this definition the following do not constitute a physical change or change in the method of operation:
    - i. A change consisting solely of the construction of, or changes to a combination of emissions units qualifying as, a categorically exempt activity.
    - ii. For a stationary source that is required to obtain a Class II permit under R18-2-302 and that is subject to source-wide emissions caps under R18-2-306.01, a change that will not result in the violation of the existing emissions cap for that regulated minor NSR pollutant.
    - iii. Replacement of an emission unit by a unit with a potential to emit regulated minor NSR pollutants that is less than or equal to the potential to emit of the existing unit, provided the replacement does not cause an increase in emissions at other emission units at the stationary source. A unit installed under this provision is subject to any limits applicable to the unit it replaced.
    - iv. Routine maintenance, repair, and replacement.
    - v. Use of an alternative fuel or raw material by reason of an order under sections 2(a) and (b) of the Energy Supply and Environmental Coordination Act of 1974, 15 U.S.C. 792, or by reason of a natural gas curtailment plan under the Federal Power Act, 16 U.S.C. 792 - 825r.
    - vi. Use of an alternative fuel by reason of an order or rule under section 125 of the Act.
    - vii. Use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste.
    - viii. Use of an alternative fuel or raw material by a stationary source that either:
      - (1) The source was capable of accommodating before December 12, 1976, unless the change would be prohibited under any federally enforceable permit condition established after December 12, 1976, under 40 CFR 52.21, or under Articles 3 or 4 of this Chapter; or
      - (2) The source is approved to use under any permit issued under 40 CFR 52.21, or under Articles 3 or 4 of this Chapter.
    - ix. An increase in the hours of operation or in the production rate, unless the change would be prohibited under any federally enforceable permit condition established after December 12, 1976, under 40 CFR 52.21, or under Articles 3 or 4 of this Chapter.
    - x. Any change in ownership at a stationary source
    - xi. The installation, operation, cessation, or removal of a temporary clean coal technology demonstration project, if the project complies with:
      - (1) The SIP, and
      - (2) Other requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated.
    - xii. For electric utility steam generating units located in attainment and unclassifiable areas only, the installation

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- or operation of a permanent clean coal technology demonstration project that constitutes repowering, if the project does not result in an increase in the potential to emit any regulated pollutant emitted by the unit. This exemption applies on a pollutant-by-pollutant basis.
- xiii. For electric utility steam generating units located in attainment and unclassifiable areas only, the reactivation of a very clean coal-fired electric utility steam generating unit.
- e. For purposes of this subsection:
- i. “Potential to emit” means the lower of a source’s or emission unit’s potential to emit or its allowable emissions.
  - ii. In determining potential to emit, the fugitive emissions of a stationary source shall not be considered unless the source belongs to a section 302(j) category.
  - iii. All of the roadways located at a stationary source constitute a single emissions unit.
- ~~12-13.~~ “NAICS” means the 5- five- or 6-digit six-digit North American Industry Classification System-United States, 1997, number for industries used by the U.S. Department of Commerce.
- ~~13-14.~~ “Permit processing time” means all time spent by Air Quality Division staff or consultants on tasks specifically related to the processing of an application for the issuance or renewal of a particular permit or permit revision, including time spent processing an application that is denied.
- ~~14-15.~~ “Quantifiable” means, with respect to emissions, including the emissions involved in equivalent emission limits and emission trades, capable of being measured or otherwise determined in terms of quantity and assessed in terms of character. Quantification may be based on emission factors, stack tests, monitored values, operating rates and averaging times, materials used in a process or production, modeling, or other reasonable measurement practices.
- ~~15.~~ “Reasonably available control technology” (RACT) means, for facilities subject to an existing source performance standard, the emissions limitation of the existing source performance standard.
- ~~16.~~ “Registration” means a registration under R18-2-302.01.
- ~~16-17.~~ “Replicable” means, with respect to methods or procedures, sufficiently unambiguous that the same or equivalent results would be obtained by the application of the method or procedure by different users.
- ~~17-18.~~ “Responsible official” means one of the following:
- a. For a corporation: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
    - i. The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars); or
    - ii. The delegation of authority to such representatives is approved in advance by the permitting authority;
  - b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
  - c. For a municipality, state, federal, or other public agency: Either a principal executive officer or ranking elected official. For the purposes of this Article, a principal executive officer of a federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of EPA); or
  - d. For affected sources:
    - i. The designated representative in so far as actions, standards, requirements, or prohibitions under Title IV of the Act or the regulations promulgated there under are concerned; and
    - ii. The designated representative for any other purposes under 40 CFR 70.
- ~~18-19.~~ “Small source” means a source with a potential to emit, without controls, less than the rate defined as ~~significant~~ permitting exemption thresholds in R18-2-101, but required to obtain a permit solely because it is subject to a standard under 40 CFR 63.
- ~~19-20.~~ “Startup” means the setting in operation of a source for any purpose.
- ~~20-21.~~ “Synthetic minor” means a source with a permit that contains voluntarily accepted emissions limitations, controls, or other requirements (for example, a cap on production rates or hours of operation, or limits on the type of fuel) under R18-2-306.01 to reduce the potential to emit to a level below the major source threshold.

**R18-2-302. Applicability; Registration; Classes of Permits**

- A. Except as otherwise provided in this Article, no person shall ~~commence~~ begin actual construction of, operate, or make a modification to any stationary source subject to regulation under this Article, without obtaining a registration, permit or permit revision from the Director.
- B. ~~There shall be two classes of permits as follows~~ Class I and II permits and registrations shall be required as follows:
1. A Class I permit shall be required for a person to ~~commence~~ begin actual construction of or operate any of the following:
    - a. Any major source,

- b. Any solid waste incineration unit required to obtain a permit pursuant to ~~Section~~ section 129(e) of the Act,
  - c. Any affected source, or
  - d. Any stationary source in a source category designated by the Administrator pursuant to 40 CFR 70.3 and adopted by the Director by rule.
2. Unless a Class I permit is required, a Class II permit shall be required for:
- a. A person to ~~commence~~ begin actual construction of or operate ~~any of the following:~~
    - i. ~~Any source, including an area source, subject to a standard, limitation, or other requirement under Section 111 of the Act;~~
    - ii. ~~Any source, including an area source, subject to a standard or other requirement under Section 112 of the Act, except that a source is not required to obtain a permit solely because it is subject to regulations or requirements under Section 112 (r) of the Act;~~
    - iii. ~~Any any stationary source that emits or has the potential to emit, without controls, other than elective limits or controls that have been or will be adopted under R18-2-302.01(F), significant quantities of regulated ~~air~~ NSR pollutants;~~
    - iv. ~~Stationary rotating machinery of greater than 325 brake horsepower; or~~
    - v. ~~Fuel-burning equipment which, at a location or property other than a one or two family residence, is fired at a sustained rate of more than 1 million Btu per hour for more than an eight-hour period.~~
  - b. A person to ~~modify~~ make a physical or operational change to a stationary source which that would cause ~~it~~ the source to emit, or have the potential to emit without controls, other than elective limits or controls that have been or will be adopted under R18-2-302.01(F), significant quantities of regulated ~~air~~ NSR pollutants greater than or equal to those specified in subsection (B)(2)(a)(iii).
  - c. A person to begin actual construction of a source subject to Article 17 of this Chapter.
  - d. A person to make a modification subject to Article 17 of this Chapter to a source for which a permit has not been issued under this Article.
  - e. A person to begin actual construction of or modify a stationary source that otherwise would be subject to registration but that the Director has determined requires a permit under R18-2-302.01(B)(3)(b).
3. Until the effective date of the Administrator's approval of R18-2-302.01 into the state implementation plan, unless a Class I permit is required, a Class II permit shall be required for any of the activities identified in subsections (B)(4)(b) and (c).
4. After the administrator approves R18-2-302.01 into the state implementation plan, unless a Class I or II permit is required, registration shall be required for:
- a. A person to begin actual construction of or operate any stationary source that emits or has the potential to emit without controls any regulated minor NSR pollutant in an amount greater than or equal to a permitting exemption threshold.
  - b. A person to begin actual construction of or operate any stationary source subject to a standard under section 111 of the Act, except that a stationary source is not required to register solely because it is subject to any of the following standards:
    - i. 40 CFR 60, Subpart AAA (Residential Wood Heaters).
    - ii. 40 CFR 60, Subpart IIII (Stationary Compression Ignition Internal Combustion Engines).
    - iii. 40 CFR 60, Subpart JJJJ (Stationary Spark Ignition Internal Combustion Engines).
  - c. A person to begin actual construction of or operate any stationary source, including an area source, subject to a standard under section 112 of the Act, except that a stationary source is not required to register solely because it is subject to any of the following standards:
    - i. 40 CFR 61.145.
    - ii. 40 CFR 63, Subpart ZZZZ (Reciprocating Internal Combustion Engines).
    - iii. 40 CFR 63, Subpart WWWW (Ethylene Oxide Sterilizers).
    - iv. 40 CFR 63, Subpart CCCCC (Gasoline Distribution).
    - v. 40 CFR 63, Subpart HHHHHH (Paint Stripping and Miscellaneous Surface Coating Operations).
    - vi. 40 CFR 63, Subpart JJJJJ (Industrial, Commercial, and Institutional Boilers Area Sources), published at 76 FR 15554, March 21, 2011.
    - vii. A regulation or requirement under section 112(r) of the Act.
  - d. A physical or operational change to a source that would cause the source to emit or have the potential to emit, without controls, any regulated minor NSR pollutant in excess of a permitting exemption threshold.
- C. Notwithstanding subsections (A) and (B), the following stationary sources do not require a permit or registration unless the source is a major source, or unless operation without a permit would result in a violation of the Act:
- 1. ~~Sources subject to 40 CFR 60, Subpart AAA, Standards of Performance for New Residential Wood Heaters;~~
  - 2. ~~Sources and source categories that would be required to obtain a permit solely because they are subject to 40 CFR 61.145; and~~
  - 1. A stationary source that consists solely of a single categorically exempt activity plus any combination of trivial activ-

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ities.

3-2. Agricultural equipment used in normal farm operations. "Agricultural equipment used in normal farm operations" does not include equipment classified as a source that requires a permit under Title V of the Act, or that is subject to a standard under 40 CFR 60, ~~or 61,~~ or 63.

- D. No person may construct or reconstruct any major source of hazardous air pollutants, unless the Director determines that maximum achievable control technology emission limitation (MACT) for new sources under ~~Section~~ section 112 of the Act will be met. If MACT has not been established by the Administrator, such determination shall be made on a case-by-case basis pursuant to 40 CFR 63.40 through 63.44, as incorporated by reference in R18-2-1101(B). For purposes of this subsection, constructing and reconstructing a major source shall have the meaning prescribed in 40 CFR 63.41.
- E. Elective limits or controls adopted under R18-2-302.01(F) shall not be considered in determining whether a source requires registration but shall be considered in determining any of the following:
  - 1. Whether the registration is subject to the public participation requirements of R18-2-330, as provided in R18-2-302.01(B)(3)(a).
  - 2. Whether review for possible interference with attainment or maintenance of ambient standards is required under R18-2-302.01(B)(3)(b).
  - 3. Whether the source requires a Class II permit, as provided in subsection (B)(2)(a) or (b).
- F. The fugitive emissions of a stationary source shall not be considered in determining whether the source requires a Class II permit under subsection (B)(2)(a) or (b) or a registration under subsection (B)(4)(a) or (e), unless the source belongs to a section 302(j) category. If a permit is required for a stationary source, the fugitive emissions of the source shall be subject to all of the requirements of this Article.
- G. Notwithstanding subsections (A) and (B) of this Section, a person may begin actual construction, but not operation, of a source requiring a Class I permit or Class I permit revision upon the Director's issuance of the proposed final permit or proposed final permit revision.

**R18-2-302.01 Source Registration Requirements**

- A. Application. An application for registration shall be submitted on the form specified by the Director and shall include the following information:
  - 1. The name of the applicant.
  - 2. The physical location of the source, including the street address, city, county, zip code and latitude and longitude coordinates.
  - 3. The source's potential to emit without controls, other than elective limits or controls adopted under subsection (F), each regulated minor NSR pollutant calculated in accordance with R18-2-327(C).
  - 4. Identification of any elective limits or controls adopted under subsection (F).
  - 5. In the case of a modification, each increase in the source's potential to emit that exceeds the applicable threshold in subsection (G)(1)(a).
  - 6. Identification of the method used to determine the potential to emit or change in potential to emit specified under R18-2-302(B)(4)(a) or (d) or subsection (G)(1)(a) of this Section.
  - 7. Process information for the source, including a list of emission units, design capacity, operations schedule, and identification of emissions control devices.
- B. Registration Processing Procedures.
  - 1. The Department shall complete a review of a registration application for administrative completeness within 30 calendar days, calculated in accordance with A.A.C. R18-1-503, after its receipt.
  - 2. The Department shall complete a substantive review and take final action on a registration application within 60 calendar days if no hearing is requested, and 90 calendar days if a hearing is requested, calculated in accordance with A.A.C. R18-1-504, after the application is administratively complete.
  - 3. Public Participation.
    - a. Except as provided in subsection (B)(3)(b), a registration for construction of a source shall be subject to the public notice and participation requirements of R18-2-330. The materials relevant to the registration decision made available to the public under R18-2-330(D)(11) shall include any determination made or modeling conducted by the Director under subsection (B)(3)(b).
    - b. A registration for construction of a source shall not be subject to the public notice and participation requirements of R18-2-330, if the source's potential to emit each regulated minor NSR pollutant without controls, other than elective limits or controls adopted under subsection (F), is less than the applicable permitting exemption threshold.
- C. Review for NAAQS Compliance; Requirement to Obtain a Permit.
  - 1. The Director shall review each application for registration of a source with the potential to emit without controls, other than elective limits or controls adopted under subsection (F), any regulated minor NSR pollutant in an amount equal to or greater than the permitting exemption threshold. The purpose of the review shall be to determine whether the new or modified source may interfere with attainment or maintenance of a standard imposed in Article 2 of this



Chapter. In making the determination required by this subsection, the Director shall take into account the following factors:

- a. The source's emission rates, including fugitive emission rates, taking into account any elective limits or controls adopted under subsection (F).
- b. The location of emission units within the facility and their proximity to the ambient air.
- c. The terrain in which the source is or will be located.
- d. The source type.
- e. The location and emissions of nearby sources.
- f. Background concentrations of regulated minor NSR pollutants.

2. The Director may undertake the review specified in subsection (C)(1) for a source with the potential to emit without controls, other than elective limits or controls adopted under subsection (F), regulated minor NSR pollutants in an amount less than the permitting exemption threshold.
3. If the Director determines under subsection (C)(1) or (2) that a source's emissions may interfere with attainment or maintenance of a standard imposed in Article 2 of this Chapter, the Director shall perform a SCREEN model run for each regulated minor NSR pollutant for which that determination has been made.
4. If the Director determines, based on performance of the SCREEN model pursuant to subsection (C)(3), that a source's emissions, taking into account any elective limits or controls adopted under subsection (F), will interfere with attainment of a standard imposed in Article 2 of this Chapter, the Director shall deny the application for registration. Notwithstanding R18-2-302(B)(4), the owner or operator of the source shall be required to obtain a permit under R18-2-302 and shall comply with R18-2-334 before beginning actual construction of the source or modification.

**D.** Notwithstanding R18-2-302(B)(4)(b) and (c), the Director shall deny an application for registration for a source subject to a standard under section 111 or 112 of the Act and require the owner or operator to obtain a permit under R18-2-302, if the Director determines based on the following factors that the requirement to obtain a permit is warranted:

1. The size and complexity of the source.
2. The complexity of the section 111 or 112 standard applicable to the source.
3. The public health or environmental risks posed by the pollutants subject to regulation under the section 111 or 112 standard.

**E.** Registration Contents. A registration shall contain the following elements:

1. Identification of each emission unit subject to an applicable requirement and all applicable requirements that apply to the unit, including any testing, monitoring, recordkeeping and reporting obligations imposed by the applicable requirement or by R18-2-312.
2. Any elective limits or controls and associated operating, maintenance, monitoring and recordkeeping requirements adopted pursuant to subsection (F).
3. A requirement to retain any records required by the registration at the source for at least three years in a form that is suitable for expeditious inspection and review.
4. For any source that has adopted elective limits or controls under subsection (F), a requirement to submit an annual compliance report on the form provided by the Director in the registration.

**F.** Elective Limits or Controls. The owner or operator of a source requiring registration may elect to include any of the following emission limitations in the registration, provided the registration also includes the operating, maintenance, monitoring and recordkeeping requirements specified below for the limitation.

1. A limitation on the hours of operation of any process or combination of processes. The owner or operator shall maintain a log or readily available business records showing actual operating hours through the preceding operating day for the process or processes subject to the limitation.
2. A limitation on the production rate for any process or combination of processes. The owner or operator shall maintain a log or readily available business records showing the actual production rate through the preceding operating day for the process or processes subject to the limitation.
3. A requirement to operate a fabric filter for the control of particulate matter emissions.
  - a. The owner or operator shall operate the fabric filter at all times that the emission unit controlled by the fabric filter is operated.
  - b. The owner or operator shall inspect the fabric filter at least once per month for tears and leaks and shall promptly repair any tears or leaks identified.
  - c. The owner or operator shall operate and maintain the fabric filter in substantial compliance with the manufacturer's operation and maintenance recommendations.
  - d. The owner or operator shall keep a log or readily available business records of the inspections required by subsection (F)(3)(b) and the maintenance activities required by subsection (F)(3)(c).
4. Limitations on the concentration of VOC or hazardous air pollutants in process materials. The owner or operator shall maintain a log or readily available business records showing the VOC or hazardous air pollutant concentration in each material subject to such a limitation used during the current calendar year.

**G.** Revised Registrations.

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1. The owner or operator of a registered source shall file a revised registration on the occurrence of any of the following:
  - a. A modification to the source that would result in an increase in the source's uncontrolled potential to emit exceeding any of the following amounts:
    - i. 2.5 tons per year for NO<sub>x</sub>, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, VOC or CO.
    - ii. 0.3 tons per year for lead.
  - b. Relocation of a portable source.
  - c. The transfer of the source to a new owner.
2. The requirements of subsection (B) shall not apply to a revised registration. The owner or operator may begin actual construction and operation of the modified, relocated or transferred source on filing the revised registration.

**H. Registration Term.**

1. A source's registration shall expire five years after the date of issuance of the last registration for the source or any modification to the source.
2. A source shall submit an application for renewal of a registration not later than six months before expiration of the registration's term.
3. If a source submits a timely and complete application for renewal of a registration, the source's authorization to operate under its existing registration shall continue until the Director takes final action on the application.
4. The Director may terminate a registration under R18-2-321(C). If the Director terminates a registration under R18-2-321(C)(3), the owner or operator shall be required to apply for a permit for the source under R18-2-302.

**I. Delayed Effective Date.** This Section shall take effect on the effective date of the Administrator's action approving it as part of the state implementation plan.

**R18-2-303. Transition from Installation and Operating Permit Program to Unitary Permit Program; Registration Transition; Minor NSR Transition**

- A. An installation or operating permit issued before September 1, 1993, and the authority to operate, as provided in Laws 1992, Ch. 299, § 65, continues in effect until ~~either of the following occurs:~~
  - 1- ~~The the installation or operating permit is terminated, or until the:~~
  - 2- ~~The Director issues or denies a Class I or Class II permit to the source, whichever is earlier.~~
- B.** The terms and conditions of installation permits issued before September 1, 1993, or in permits or permit revisions issued under R18-2-302 and authorizing the construction or modification of a stationary source, remain federal applicable requirements unless modified or revoked by the Director.
- C.** All sources in existence on January 1, 2012, requiring a registration shall provide notice to the Director by no later than March 31, 2012, on a form provided by the Director.
- D.** All sources requiring a registration that are in existence on the date R18-2-302.01 becomes effective under R18-2-302.01(I) may submit applications for registration at any time after R18-2-302.01 is effective and shall submit an application no later than 180 days after receipt of written notice from the Director that an application is required. Applications to register the construction or modification of a source must be submitted, and the registration must be issued, before the applicant begins actual construction of the source or modification.
- E.** Sources in existence on the date R18-2-334 becomes effective under R18-2-334(I) are not subject to R18-2-334, unless the source undertakes a minor NSR modification. Notwithstanding any other provision of this Chapter, R18-2-334 shall apply only to applications for permits or permit revisions filed after the date R18-2-334 takes effect under R18-2-334(I).
- ~~**B.** Sources requiring Class I permits that are in existence on the date this Section becomes effective shall submit permit applications on or before the following dates:~~
  - 1- ~~Kraft pulp mills: 5/1/94~~
  - 2- ~~Metallic mineral processing plants: 5/1/94~~
  - 3- ~~Portland cement plants: 8/1/94~~
  - 4- ~~Non-metallic mineral processing plants: 8/1/94~~
  - 5- ~~Lumber mills: 8/1/94~~
  - 6- ~~Primary copper smelters: 11/1/94~~
  - 7- ~~Lime manufacturing plants: 11/1/94~~
  - 8- ~~Nitric acid plants: 11/1/94~~
  - 9- ~~Petroleum refineries: 11/1/94~~
  - 10- ~~Electric utility steam generating units: 2/1/95~~
  - 11- ~~Combined cycle gas turbines: 2/1/95~~
  - 12- ~~Fossil fuel fired industrial and commercial equipment: 2/1/95~~
  - 13- ~~Stationary gas turbines: 5/1/95~~
  - 14- ~~Any other source requiring a Class I permit: 5/1/95~~
- ~~**C.** Except as provided in subsection (D), sources requiring Class II permits that are in existence on the date this Section becomes effective may submit permit applications at any time after this Section is effective and shall submit applications within 180 days of receipt of written notice from the Director that an application is required.~~

- ~~D.~~ All sources requiring a Class II permit under R18-2-302(B)(2)(b)(i) and (ii) shall submit complete permit applications no later than May 1, 1998.
- ~~E.~~ Any application for an operating permit or an installation permit that is determined to be complete prior to the effective date of this Section but for which no permit has been issued shall be considered complete for the purposes of this Section. In issuing a permit pursuant to such an application, the Director shall include in the permit all elements addressed in the application and a schedule of compliance for submitting an application for a permit revision to address the elements required to be in the permit that were not included in the operating permit or installation permit application. No later than six months after the effective date of this Section, the Director shall take final action on an operating permit application or an installation permit application determined to be complete prior to the effective date of this Section.
- ~~F.~~ Unless otherwise provided, R18-2-317 through R18-2-323 shall apply to sources with permits issued before the effective date of this Section.

#### R18-2-304. Permit Application Processing Procedures

- A. Unless otherwise noted, this Section applies to each source requiring a Class I or II permit or permit revision.
- B. Standard Application Form and Required Information. To apply for any permit in this Chapter, applicants shall complete the "Standard Permit Application Form" and supply all information required by the "Filing Instructions" as shown in Appendix 1. The Director, either upon the Director's own initiative or on the request of a permit applicant, may waive a requirement that specific information or data be submitted in the application for a Class II permit for a particular source or category of sources if the Director determines that the information or data would be unnecessary to determine all of the following:
  - 1. The applicable requirements to which the source may be subject;
  - 2. That the source is so designed, controlled, or equipped with such air pollution control equipment that it may be expected to operate without emitting or without causing to be emitted air contaminants in violation of the provisions of A.R.S. Title 49, Chapter 3, Article 2 and this Chapter;
  - 3. The fees to which the source may be subject;
  - 4. A proposed emission limitation, control, or other requirement that meets the requirements of R18-2-306.01.
- C. ~~Unless otherwise required by R18-2-303(B) through (D), a~~ A timely application is:
  - 1. For a source, ~~other than a major source, applying for a permit for the first time, that becomes subject to the permit program as a result of a change in regulation and not as a result of construction or a physical or operational change,~~ one that is submitted within 12 months after the source becomes subject to the permit program.
  - 2. For purposes of permit renewal, a timely application is one that is submitted at least six months, but not more than 18 months, prior to the date of permit expiration.
  - 3. ~~For initial phase II acid rain permits under Title IV of the Act and regulations incorporated pursuant to R18-2-333, one that is submitted to the Director by January 1, 1996, for sulfur dioxide, and by January 1, 1998, for nitrogen oxides.~~
  - 4. ~~Any source under R18-2-326(B)(3)~~ R18-2-326(A)(3) which becomes subject to a standard promulgated by the Administrator pursuant to ~~Section~~ section 112(d) of the Act shall, within 12 months of the date on which the standard is promulgated, submit an application for a permit revision demonstrating how the source will comply with the standard.
- D. If an applicable implementation plan allows the determination of an alternative emission limit, a source may, in its application, propose an emission limit that is equivalent to the emission limit otherwise applicable to the source under the applicable implementation plan. The source shall also demonstrate that the equivalent limit is quantifiable, accountable, enforceable, and subject to replicable compliance determination procedures.
- E. A complete application shall comply with all of the following:
  - 1. To be complete, an application shall provide all information required by subsection (B) (standard application form section). An application for permit revision only need supply information related to the proposed change, unless the source's proposed permit revision will change the permit from a Class II permit to a Class I permit. A responsible official shall certify the submitted information consistent with subsection (H) (Certification of Truth, Accuracy, and Completeness).
  - 2. An application for a new permit or permit revision shall contain an assessment of the applicability of the requirements of Article 4 of this Chapter. If the applicant determines that the proposed new source is a major source as defined in R18-2-401, or the proposed permit revision constitutes a major modification as defined in R18-2-101, then the application shall comply with all applicable requirements of Article 4.
  - 3. An application for a new permit or permit revision shall contain an assessment of the applicability of Minor New Source Review requirements in R18-2-334. If the applicant determines that the proposed new source is subject to R18-2-334, or the proposed permit revision constitutes a Minor NSR Modification, then the application shall comply with all applicable requirements of R18-2-334.
  - 3. ~~4.~~ An application for a new permit or a permit revision shall contain an assessment of the applicability of the requirements established under Article 17 of this Chapter. If the applicant determines that the proposed new source permit or

permit revision is subject to the requirements of Article 17 of this Chapter, the application shall comply with all applicable requirements of that Article.

4. ~~Except for proposed new major sources or major modifications subject to the requirements of Article 4 of this Chapter, an application for a new permit, a permit revision, or a permit renewal shall be deemed to be complete unless, within 60 days of receipt of the application, the Director notifies the applicant by certified mail that the application is not complete.~~
  5. If a source wishes to voluntarily enter into an emissions limitation, control, or other requirement pursuant to R18-2-306.01, the source shall describe that emissions limitation, control, or other requirement in its application, along with proposed associated monitoring, recordkeeping, and reporting requirements necessary to demonstrate that the emissions limitation, control, or other requirement is permanent, quantifiable, and otherwise enforceable as a practical matter.
  6. If, while processing an application that has been determined or deemed to be complete, the Director determines that additional information is necessary to evaluate or take final action on that application, the Director may request such information in writing, ~~delivered by certified mail,~~ and set a reasonable deadline for a response. Except for minor permit revisions as set forth in R18-2-319, a source's ability to continue operating without a permit, as set forth in ~~this Article subsection (J),~~ shall be in effect from the date the application is determined to be complete until the final permit is issued, provided that the applicant submits any requested additional information by the deadline specified by the Director. ~~If the Director notifies an applicant that its application is not complete under subsection (E)(4), the application may not be deemed automatically complete until an additional 60 days after receipt of the next submittal by the applicant. The Director may, after one submittal by the applicant pursuant to this subsection, reject an application that is determined to be still incomplete and shall notify the applicant of the decision by certified mail. After a rejection under this subsection, the Director may deny the permit or revoke an existing permit, as applicable.~~
  7. The completeness determination shall not apply to revisions processed through the minor permit revision process.
  8. Activities which are insignificant pursuant to the definition of insignificant activities in R18-2-101 R18-2-101(57) shall be listed in the application. The application need not provide emissions data regarding insignificant activities. If the Director determines that an activity listed as insignificant does not meet the requirements of the definition of insignificant activities in R18-2-101 R18-2-101(57), the Director shall notify the applicant in writing and specify additional information required.
  9. If a permit applicant requests terms and conditions allowing for the trading of emission increases and decreases in the permitted facility solely for the purpose of complying with a federally enforceable emission cap that is established in the permit independent of otherwise applicable requirements, the permit applicant shall include in its application proposed replicable procedures and permit terms that ensure the emissions trades are quantifiable and enforceable.
  10. The Director is not in disagreement with a notice of confidentiality submitted with the application pursuant to A.R.S. § 49-432.
- F.** A source applying for a Class I permit that has submitted information with an application under a claim of confidentiality pursuant to A.R.S. § 49-432 and R18-2-305 shall submit a copy of such information directly to the Administrator.
- G.** Duty to Supplement or Correct Application. Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. In addition, an applicant shall provide additional information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to release of a proposed permit.
- H.** Certification of Truth, Accuracy, and Completeness. Any application form, report, or compliance certification submitted pursuant to this Chapter shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this Article shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- I.** Action on Application.
1. The Director shall issue or deny each permit according to the provisions of A.R.S. § 49-427. The Director may issue a permit with a compliance schedule for a source that is not in compliance with all applicable requirements at the time of permit issuance.
  2. In addition, a permit may be issued, revised, or renewed only if all of the following conditions have been met:
    - a. The application received by the Director for a permit, permit revision, or permit renewal shall be complete according to subsection (E).
    - b. Except for revisions qualifying as administrative or minor under R18-2-318 and R18-2-319, all of the requirements for public notice and participation under R18-2-330 shall have been met.
    - c. For Class I permits, the Director shall have complied with the requirements of R18-2-307 for notifying and responding to affected states, and if applicable, other notification requirements of R18-2-402(D)(2) and R18-2-410(C)(2).
    - d. For Class I and II permits, the conditions of the permit shall require compliance with all applicable requirements.
    - e. For permits for which an application is required to be submitted to the Administrator under R18-2-307(A), and to

which the Administrator has properly objected to its issuance in writing within 45 days of receipt of the proposed final permit and all necessary supporting information from the Department, the Director has revised and submitted a proposed final permit in response to the objection and EPA has not objected to this proposed final permit within 45 days of receipt.

- f. For permits to which the Administrator has objected to issuance pursuant to a petition filed under 40 CFR 70.8(d), the ~~administrator's~~ Administrator's objection has been resolved.
  - g. For a Class II permit that contains voluntary emission limitations, controls, or other requirements established pursuant to R18-2-306.01, the Director shall have complied with the requirement of R18-2-306.01(C) to provide the Administrator with a copy of the proposed permit.
3. If the Director denies a permit under this Section, a notice shall be served on the applicant by certified mail, return receipt requested. The notice shall include a statement detailing the grounds for the denial and a statement that the permit applicant is entitled to a hearing.
  4. The Director shall provide a statement that sets forth the legal and factual basis for the proposed permit conditions including references to the applicable statutory or regulatory provisions. The Director shall send this statement to any person who requests it and, for Class I permits, to the Administrator.
  - ~~5. Except as provided in R18-2-303 and R18-2-402, regulations promulgated under Title IV or V of the Act, or the permitting of affected sources under the acid rain program pursuant to R18-2-333, the Director shall take final action on each permit application (and request for revision or renewal) within 18 months after receiving a complete application.~~
  - ~~6.5. Priority shall be given by the Director to taking action on applications for construction or modification submitted pursuant to Title I, Parts C (Prevention of Significant Deterioration) and D (New Source Review) of the Act.~~
  - ~~7. A proposed permit decision shall be published within nine months of receipt of a complete application and any additional information requested pursuant to subsection (E)(6) to process the application. The Director shall provide notice of the decision as provided in R18-2-330 and any public hearing shall be scheduled as expeditiously as possible.~~
- J. Requirement for a Permit. Except as noted under the provisions in R18-2-317 and R18-2-319, no source may operate after the time that it is required to submit a timely and complete application, except in compliance with a permit issued pursuant to this Chapter. However, if a source under ~~R18-2-326(B)(3)~~ R18-2-326(A)(3) submits a timely and complete application for continued operation under a permit revision or renewal, the source's failure to have a permit is not a violation of this Article until the Director takes final action on the application. This protection shall cease to apply if, subsequent to the completeness determination, the applicant fails to submit, by the deadline specified in writing by the Director, any additional information identified as being needed to process the application. This subsection does not affect a source's obligation to obtain a permit revision before making a modification to the source.

#### **R18-2-310.01. Reporting Requirements**

- A. The owner or operator of any source shall report to the Director any emissions in excess of the limits established by this Chapter or the applicable permit. The owner or operator of any registered source may report excess emissions in accordance with this Section in order to qualify for the affirmative defense established in R18-2-310. The report shall be in two parts as specified below:
1. Notification by telephone or facsimile within 24 hours of the time the owner or operator first learned of the occurrence of excess emissions that includes all available information from subsection (B).
  2. Detailed written notification by submission of an excess emissions report within 72 hours of the notification under subsection ~~(+)~~ (A)(1).
- B. The excess emissions report shall contain the following information:
1. The identity of each stack or other emission point where the excess emissions occurred;
  2. The magnitude of the excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emissions;
  3. The time and duration or expected duration of the excess emissions;
  4. The identity of the equipment from which the excess emissions emanated;
  5. The nature and cause of the emissions;
  6. The steps taken, if the excess emissions were the result of a malfunction, to remedy the malfunction and the steps taken or planned to prevent the recurrence of the malfunctions;
  7. The steps that were or are being taken to limit the excess emissions; and
  8. If the source's permit contains procedures governing source operation during periods of startup or malfunction and the excess emissions resulted from startup or malfunction, a list of the steps taken to comply with the permit procedures.
- C. In the case of continuous or recurring excess emissions, the notification requirements of this Section shall be satisfied if the source provides the required notification after excess emissions are first detected and includes in the notification an estimate of the time the excess emissions will continue. Excess emissions occurring after the estimated time period or changes in the nature of the emissions as originally reported shall require additional notification pursuant to subsections

(A) and (B).

**R18-2-317. Facility Changes Allowed Without Permit Revisions - Class I**

- A. A facility with a Class I permit may make changes without a permit revision if all of the following apply:
1. The changes are not modifications under any provision of Title I of the Act or under A.R.S. § 49-401.01(24);
  2. The changes do not exceed the emissions allowable under the permit whether expressed therein as a rate of emissions or in terms of total emissions;
  3. The changes do not violate any applicable requirements or trigger any additional applicable requirements;
  4. The changes satisfy all requirements for a minor permit revision under R18-2-319(A); ~~and~~
  5. The changes do not contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements; and
  6. The changes do not constitute a minor NSR modification.
- B. The substitution of an item of process or pollution control equipment for an identical or substantially similar item of process or pollution control equipment shall qualify as a change that does not require a permit revision, if the substitution meets all of the requirements of subsections (A), (D), and (E).
- C. Except for sources with authority to operate under general permits, permitted sources may trade increases and decreases in emissions within the permitted facility, as established in the permit under R18-2-306(A)(12), if an applicable implementation plan provides for the emissions trades without applying for a permit revision and based on the seven working days notice prescribed in subsection (D). This provision is available if the permit does not provide for the emissions trading as a minor permit revision.
- D. For each change under subsections (A) through (C), a written notice by certified mail or hand delivery shall be received by the Director and the Administrator a minimum of seven working days in advance of the change. Notifications of changes associated with emergency conditions, such as malfunctions necessitating the replacement of equipment, may be provided less than seven working days in advance of the change but must be provided as far in advance of the change or, if advance notification is not practicable, as soon after the change as possible.
- E. Each notification shall include:
1. When the proposed change will occur;
  2. A description of the change;
  3. Any change in emissions of regulated air pollutants;
  4. The pollutants emitted subject to the emissions trade, if any;
  5. The provisions in the implementation plan that provide for the emissions trade with which the source will comply and any other information as may be required by the provisions in the implementation plan authorizing the trade;
  6. If the emissions trading provisions of the implementation plan are invoked, then the permit requirements with which the source will comply; and
  7. Any permit term or condition that is no longer applicable as a result of the change.
- F. The permit shield described in R18-2-325 shall not apply to any change made under subsections (A) through (C). Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the implementation plan authorizing the emissions trade.
- G. Except as otherwise provided for in the permit, making a change from one alternative operating scenario to another as provided under R18-2-306(A)(11) shall not require any prior notice under this Section.
- ~~H. Notwithstanding any other part of this Section, the Director may require a permit to be revised for any change that, when considered together with any other changes submitted by the same source under this Section over the term of the permit, do not satisfy subsection (A).~~
- ~~I.H.~~ The Director shall make available to the public monthly summaries of all notices received under this Section.

**R18-2-317.01. Facility Changes that Require a Permit Revision - Class II**

- A. The following changes at a source with a Class II permit shall require a permit revision:
1. A change that ~~would triggers~~ trigger a new applicable requirement or violates an existing applicable requirement.
  2. Establishment of, or change in, an emissions cap under R18-2-306.02;
  3. A change that will require a case-by-case determination of an emission limitation or other standard, or a source-specific determination of ambient impacts, or a visibility or increment analysis;
  4. A change that results in emissions that are subject to monitoring, recordkeeping or reporting under R18-2-306(A)(3),(4), or (5) if the emissions cannot be measured or otherwise adequately quantified by monitoring, recordkeeping, or reporting requirements already in the permit;
  5. A change that will authorize the burning of used oil, used oil fuel, hazardous waste, or hazardous waste fuel, or any other fuel not currently authorized by the permit;
  6. A change that requires the source to obtain a Class I permit;
  7. Replacement of an item of air pollution control equipment listed in the permit with one that does not have the same or better pollutant removal efficiency;

8. Establishment or revision of a limit under R18-2-306.01;
9. Increasing operating hours or rates of production above the permitted level; ~~and~~
10. A change that relaxes monitoring, recordkeeping, or reporting requirements, except when the change results:
  - a. From removing equipment that results in a permanent decrease in actual emissions, if the source keeps ~~on-site~~ onsite records of the change in a log that satisfies Appendix 3 of this Chapter and if the requirements that are relaxed are present in the permit solely for the equipment that was removed; or
  - b. From a change in an applicable requirement; and

11. A minor NSR modification.

- B.** A source with a Class II permit may make any physical change or change in the method of operation without revising the source's permit unless the change is specifically prohibited in the source's permit or is a change described in subsection (A). A change that does not require a permit revision may still be subject to requirements in R18-2-317.02.

**R18-2-317.02. Procedures for Certain Changes that ~~do not~~ Do Not Require a Permit Revision - Class II**

- A.** Except for a physical change or change in the method of operation at a Class II source requiring a permit revision under R18-2-317.01, or a change subject to logging or notice requirements in subsection (B) or (C), a change at a Class II source shall not be subject to revision, notice, or logging requirements under this Chapter.
- B.** Except as otherwise provided in the conditions applicable to an emissions cap created under R18-2-306.02, the following changes may be made if the source keeps onsite records of the changes according to Appendix 3:
1. Implementing an alternative operating scenario, including raw material changes;
  2. Changing process equipment, operating procedures, or making any other physical change if the permit requires the change to be logged;
  3. Engaging in any new insignificant activity listed in the definition of "insignificant activities" in R18-2-101 ~~R18-2-101(57)(a) through (i)~~ but not listed in the permit;
  4. Replacing an item of air pollution control equipment listed in the permit with an identical (same model, different serial number) item. The Director may require verification of efficiency of the new equipment by performance tests; and
  5. A change that results in a decrease in actual emissions if the source wants to claim credit for the decrease in determining whether the source has a net emissions increase for any purpose. The logged information shall include a description of the change that will produce the decrease in actual emissions. A decrease that has not been logged is creditable only if the decrease is quantifiable, enforceable, and otherwise qualifies as a creditable decrease.
- C.** Except as provided in the conditions applicable to an emissions cap created under R18-2-306.02, the following changes may be made if the source provides written notice to the Department in advance of the change as provided below:
1. Replacing an item of air pollution control equipment listed in the permit with one that is not identical but that is substantially similar and has the same or better pollutant removal efficiency: seven days. The Director may require verification of efficiency of the new equipment by performance tests;
  2. A physical change or change in the method of operation that increases actual emissions more than 10% of the major source threshold for any conventional pollutant but does not require a permit revision: seven days;
  3. Replacing an item of air pollution control equipment listed in the permit with one that is not substantially similar but that has the same or better efficiency: 30 days. The Director may require verification of efficiency of the new equipment by performance tests;
  4. A change that would trigger an applicable requirement that already exists in the permit: 30 days unless otherwise required by the applicable requirement;
  5. A change that amounts to reconstruction of the source or an affected facility: seven days. For purposes of this subsection, reconstruction of a source or an affected facility shall be presumed if the fixed capital cost of the new components exceeds 50% of the fixed capital cost of a comparable entirely new source or affected facility and the changes to the components have occurred over the 12 consecutive months beginning with commencement of construction; and
  6. A change that will result in the emissions of a new regulated air pollutant above an applicable regulatory threshold but that does not trigger a new applicable requirement for that source category: 30 days. For purposes of this requirement, an applicable regulatory threshold for a conventional air pollutant shall be 10% of the applicable major source threshold for that pollutant.
- D.** For each change under subsection (C), the written notice shall be by certified mail or hand delivery and shall be received by the Director the minimum amount of time in advance of the change. Notifications of changes associated with emergency conditions, such as malfunctions necessitating the replacement of equipment, may be provided with less than required notice, but must be provided as far in advance of the change, or if advance notification is not practicable, as soon after the change as possible. The written notice shall include:
1. When the proposed change will occur,
  2. A description of the change,
  3. Any change in emissions of regulated air pollutants, and
  4. Any permit term or condition that is no longer applicable as a result of the change.

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- E. A source may implement any change in subsection (C) without the required notice by applying for a minor permit revision under R18-2-319 and complying with R18-2-319(D)(2) and (G).
- F. The permit shield described in R18-2-325 shall not apply to any change made under this Section, other than implementation of an alternate operating scenario under subsection (B)(1).
- G. Notwithstanding any other part of this Section, the Director may require a permit to be revised for any change that, when considered together with any other changes submitted by the same source under this Section over the term of the permit, constitutes a change under R18-317.01(A).
- H. If a source change is described under both subsections (B) and (C), the source shall comply with subsection (C). If a source change is described under both ~~subsections~~ subsection (C) and R18-2-317.01(B), the source shall comply with R18-2-317.01(B).
- I. A copy of all logs required under subsection (B) shall be filed with the Director within 30 days after each anniversary of the permit issue date. If no changes were made at the source requiring logging, a statement to that effect shall be filed instead.

**R18-2-319. Minor Permit Revisions**

- A. Minor permit revision procedures may be used only for those changes at a Class I source that satisfy all of the following:
  - 1. Do not violate any applicable requirement;
  - 2. Do not involve substantive changes to existing monitoring, reporting, or recordkeeping requirements in the permit;
  - 3. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination of ambient impacts, or a visibility or increment analysis;
  - 4. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed in order to avoid an applicable requirement to which the source would otherwise be subject. The terms and conditions include:
    - a. A federally enforceable emissions cap that the source would assume to avoid classification as a modification under any provision of Title I of the Act; and
    - b. An alternative emissions limit approved under regulations promulgated under the ~~Section~~ section 112(i)(5) of the Act.
  - 5. Are not modifications under any provision of Title I of the Act;
  - 6. Are not changes in fuels not represented in the permit application or provided for in the permit;
  - 7. ~~The increase in the source's potential to emit any regulated air pollutant is not significant as defined in R18-2-101. Are not minor NSR modifications subject to R18-2-334, except that minor NSR modifications subject to R18-2-334(G) may be processed as minor permit revisions;~~ and
  - 8. Are not required to be processed as a significant permit revision under R18-2-320.
- B. Minor permit revision procedures shall be used for the following changes at a Class II source:
  - 1. A change that triggers a new applicable requirement if all of the following apply:
    - a. ~~For emissions units not subject to an emissions cap, the net emissions increase is less than the significant level defined in R18-2-101(11). The change is not a minor NSR modification subject to R18-2-334, except that minor NSR modifications subject to R18-2-334(G) may be processed as minor permit revisions;~~
    - b. A case-by-case determination of an emission limitation or other standard is not required; and
    - c. The change does not require the source to obtain a Class I permit;
  - 2. ~~Increasing operating hours or rates of production~~ A change that increases emissions above the permitted level unless the increase otherwise creates a condition that requires a significant permit revision;
  - 3. A change in fuel from fuel oil or coal, to natural gas or propane, if not authorized in the permit;
  - 4. A change that results in emissions subject to monitoring, recordkeeping, or reporting under R18-2-306(A)(3),(4), or (5) and that cannot be measured or otherwise adequately quantified by monitoring, recordkeeping, or reporting requirements already in the permit;
  - 5. A decrease in the emissions permitted under an emissions cap unless the decrease requires a change in the conditions required to enforce the cap or to ensure that emissions trades conducted under the cap are quantifiable and enforceable; and
  - 6. Replacement of an item of air pollution control equipment listed in the permit with one that does not have the same or better efficiency.
- C. As approved by the Director, minor permit revision procedures may be used for permit revisions involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, to the extent that the minor permit revision procedures are explicitly provided for in an applicable implementation plan or in applicable requirements promulgated by the Administrator.
- D. An application for minor permit revision shall be on the standard application form contained in Appendix 1 and include the following:
  - 1. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;



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2. For Class I sources, and any source that is making the change immediately after it files the application, the source's suggested draft permit;
3. Certification by a responsible official, consistent with standard permit application requirements, that the proposed revision meets the criteria for use of minor permit revision procedures and a request that the procedures be used;
- E. EPA and affected state notification. For Class I permits, within five working days of receipt of an application for a minor permit revision, the Director shall notify the Administrator and affected states of the requested permit revision in accordance with R18-2-307.
- ~~F. The Director shall follow the following timetable for action on an application for a minor permit revision:~~
- ~~F.1.~~ For Class I permits, the Director shall not issue a final permit revision until after the Administrator's 45-day review period or until the Administrator has notified the Director that the Administrator will not object to issuance of the permit revision, whichever is first, although the Director may approve the permit revision before that time. Within 90 days of the Director's receipt of an application under minor permit revision procedures, or 15 days after the end of the Administrator's 45-day review period, whichever is later, the Director shall do one or more of the following:
  - ~~a.1.~~ Issue the permit revision as proposed,
  - ~~b.2.~~ Deny the permit revision application,
  - ~~e.3.~~ Determine that the proposed permit revision does not meet the minor permit revision criteria and should be reviewed under the significant revision procedures, or
  - ~~d.4.~~ Revise the proposed permit revision and transmit to the Administrator the new proposed permit revision as required in R18-2-307.
- ~~2.~~ Within 60 days of the Director's receipt of an application for a revision of a Class II permit under this Section, the Director shall do one or more of the following:
  - ~~a.~~ Issue the permit revision as proposed;
  - ~~b.~~ Deny the permit revision application;
  - ~~e.~~ Determine that the permit revision does not meet the minor permit revision criteria and should be reviewed under the significant revision procedures; or
  - ~~d.~~ Revise and issue the proposed permit revision.
- G. The source may make the change proposed in its minor permit revision application immediately after it files the application. After ~~the a Class I~~ source makes ~~the a~~ change allowed by the preceding sentence, and until the Director takes any of the actions specified in subsection (F), the source shall comply with both the applicable requirements governing the change and the proposed revised permit terms and conditions. During this time period, the Class I source need not comply with the existing permit terms and conditions it seeks to modify. However, if the Class I source fails to comply with its proposed permit terms and conditions during this time period, the existing permit terms and conditions it seeks to revise may be enforced against it.
- H. The permit shield under R18-2-325 shall not extend to minor permit revisions.
- I. Notwithstanding any other part of this Section, the Director may require a permit to be revised under R18-2-320 for any change that, when considered together with any other changes submitted by the same source under this Section or R18-2-317.02 over the life of the permit, do not satisfy subsection (A) for Class I sources or subsection (B) for Class II sources.
- J. The Director shall make available to the public monthly summaries of all applications for minor permit revisions.

**R18-2-320. Significant Permit Revisions**

- A. For Class I sources, a significant revision shall be used for an application requesting a permit revision that does not qualify as a minor permit revision or as an administrative amendment. A significant revision that is only required because of a change described in R18-2-319(A)(6) or (7) shall not be considered a significant permit revision under part 70 for the purposes of 40 CFR 64.5(a)(2). Every significant change in existing monitoring permit terms or conditions and every relaxation of reporting or recordkeeping permit terms or conditions shall follow significant revision procedures.
- B. A source with a Class II permit shall make the following changes only after the permit is revised following the public participation requirements of R18-2-330:
  1. Establishing or revising a voluntarily accepted emission limitation or standard as described by R18-2-306.01 or R18-2-306.02, except a decrease in the limitation authorized by R18-2-319(B)(5);
  2. Making any change in fuel not authorized by the permit and that is not fuel oil or coal, to natural gas or propane;
  3. ~~A change to or addition of an emissions unit not subject to an emissions cap that will result in a net emission increase of a pollutant greater than the significance level in R18-2-101(104)~~ A change that is a minor NSR modification subject to R18-2-334, except for a minor modification subject to R18-2-334(G);
  4. A change that relaxes monitoring, recordkeeping, or reporting requirements, except when the change results from:
    - a. Removing equipment that results in a permanent decrease in actual emissions, if the source keeps ~~on-site~~ onsite records of the change in a log that satisfies Appendix 3 of this Chapter and if the requirements that are relaxed are present in the permit solely for the equipment that was removed; or
    - b. A change in an applicable requirement.
  5. A change that will cause the source to violate an existing applicable requirement including the conditions establishing

- an emissions cap;
6. A change that will require any of the following:
    - a. A case-by-case determination of an emission limitation or other standard;
    - b. A source-specific determination of ambient impacts, or a visibility or increment analysis; or
    - c. A case-by-case determination of a monitoring, recordkeeping, and reporting requirement; or
  7. A change that requires the source to obtain a Class I permit.
- C. Any modification to a major source of federally listed hazardous air pollutants, and any reconstruction of a source, or a process or production unit, under ~~Section~~ section 112(g) of the Act and regulations promulgated thereunder, shall follow significant permit revision procedures and any rules adopted under A.R.S. § 49-426.03.
- D. Significant permit revisions shall meet all requirements of this Article for applications, public participation, review by affected states, and review by the Administrator that apply to permit issuance and renewal. Notwithstanding R18-2-330(C), the Director may provide notice for changes requiring a significant permit revision solely under subsection (B)(2), (4) or (6)(c) by posting a notice on the Department's web site, sending e-mails to persons who have requested electronic notification of the Department's proposed air quality permit actions and by mailing a copy of the notice as provided in R18-2-330(C)(1).
- E. When an existing source applies for a significant permit revision to revise its permit from a Class II permit to a Class I permit, it shall submit a Class I permit application in accordance with R18-2-304. The Director shall issue the entire permit, and not just the portion being revised, in accordance with Class I permit content and issuance requirements, including requirements for public, affected state, and EPA review, contained in R18-2-307 and R18-2-330.
- ~~F. The Director shall process the majority of significant permit revision applications received each calendar year within nine months of receipt of a complete permit application but in no case longer than 18 months. Applications for which the Director undertakes accelerated processing under R18-2-326(N) shall not be included in this requirement. This subsection (does) not change any time frame requirements in Chapter 1.~~

**R18-2-321. Permit Reopenings; Revocation and Reissuance; Termination**

- A. Reopening for Cause.
1. Each issued permit shall include provisions specifying the conditions under which the permit shall be reopened prior to the expiration of the permit. A permit shall be reopened and revised under any of the following circumstances:
    - a. Additional applicable requirements under the Act become applicable to a major source with a remaining permit term of three or more years. Such a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to R18-2-322(B). Any permit revision required pursuant to this subsection (shall) comply with provisions in R18-2-322 for permit renewal and shall reset the five-year permit term.
    - b. Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the Class I permit.
    - c. The Director or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
    - d. The Director or the Administrator determines that the permit needs to be revised or revoked to assure compliance with the applicable requirements.
  2. Proceedings to reopen and issue a permit, including appeal of any final action relating to a permit reopening, shall follow the same procedures as apply to initial permit issuance and shall, except for reopenings under subsection ~~(A)(1)(a)~~ (A)(1)(a), affect only those parts of the permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable.
  3. Reopenings under subsection (A)(1) shall not be initiated before a notice of such intent is provided to the source by the Director at least 30 days in advance of the date that the permit is to be reopened, except that the Director may provide a shorter time period in the case of an emergency.
  4. When a permit is reopened and revised pursuant to this Section, the Director may make appropriate revisions to the permit shield established pursuant to R18-2-325.
- B. Within 10 days of receipt of notice from the Administrator that cause exists to reopen a Class I permit, the Director shall notify the source. The source shall have 30 days to respond to the Director. Within 90 days of receipt of notice from the Administrator that cause exists to reopen a permit, or within any extension to the 90 days granted by EPA, the Director shall forward to the Administrator and the source a proposed determination of termination, revision, or revocation and reissuance of the permit. Within 90 days of receipt of an EPA objection to the Director's proposal, the Director shall resolve the objection and act on the permit.
- C. The Director may issue a notice of termination of a permit or registration issued pursuant to this Chapter if:
1. The Director has reasonable cause to believe that the permit or registration was obtained by fraud or misrepresentation.

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2. The person applying for the permit or registration failed to disclose a material fact required by the ~~permit~~ application form or the regulation applicable to the permit or registration, of which the applicant had or should have had knowledge at the time the application was submitted.

3. The terms and conditions of the permit or registration have been or are being violated.

**D.** If the Director issues a notice of termination under this Section, the notice shall be served on the permittee by certified mail, return receipt requested. The notice shall include a statement detailing the grounds for the revocation and a statement that the permittee is entitled to a hearing.

**R18-2-324. Portable Sources**

**A.** A portable source that will operate for the duration of its permit solely in one county that has established a local air pollution control program pursuant to A.R.S. § 49-479 shall obtain a permit from that county. A portable source with a county permit shall not operate in any other county. A portable source that has a permit issued by the Director and obtains a county permit shall request that the Director terminate the permit. Upon issuance of the county permit, the permit issued by the Director is no longer valid.

**B.** A portable source which has a county permit but proposes to operate outside ~~the that~~ county shall obtain a permit from the Director. A portable source that has a permit issued by a county and obtains a permit issued by the Director shall request that the county terminate the permit. Upon issuance of a permit by the Director, the county ~~shall terminate the county permit for that source~~ permit is no longer valid. Before commencing operation in the new county, the source shall notify the Director and the control officer who has jurisdiction ~~over the geographic area in the county~~ that includes the new location according to subsection (D).

**C.** An owner of portable source equipment which requires a permit under this Chapter shall obtain the permit prior to renting or leasing said equipment. This permit shall be provided by the owner to the renter or lessee, and the renter or lessee shall be bound by the permit provisions. In the event a copy of the permit is not provided to the renter or lessee, both the owner and the lessee or renter shall be responsible for the operation of this equipment in compliance with the permit conditions and any violations thereof.

**D.** A portable source may be transferred from one location to another provided that the owner or operator of such equipment notifies the Director and any control officer who has jurisdiction over the geographic area that includes the new location of the transfer by certified mail at least 10 working days before the transfer. The notification required under this subsection (shall) include:

1. A description of the equipment to be transferred including the permit number for such equipment;
2. A description of the present location;
3. A description of the location to which the equipment is to be transferred, including the availability of all utilities, such as water and electricity, necessary for the proper operation of all control equipment;
4. The date on which the equipment is to be moved; and
5. The date on which operation of the equipment will begin at the new location.

**E.** Any permit for a portable source shall contain conditions that will assure compliance with all applicable requirements at all authorized locations.

**R18-2-327. Annual Emissions Inventory Questionnaire**

**A.** Every source subject to a ~~permit requirement~~ requirements under this Chapter shall complete and submit to the Director an annual emissions inventory questionnaire. The questionnaire is due by March 31 or 90 days after the Director makes the inventory form available, whichever occurs later, and shall include emission information for the previous calendar year. These requirements apply whether or not a permit has been issued and whether or not a permit application has been filed.

**B.** The questionnaire shall be on a form provided by the Director and shall include the following information:

1. The source's name, description, mailing address, contact person and contact person phone number, and physical address and location, if different than the mailing address.
2. Process information for the source, including design capacity, operations schedule, and emissions control devices, their description and efficiencies.
3. The actual quantity of emissions from permitted emission points and fugitive emissions as provided in the permit, including documentation of the method of measurement, calculation, or estimation, determined pursuant to subsection (C), of the following regulated air pollutants:
  - a. Any single regulated air pollutant in a quantity greater than 1 ton or the amount listed for the pollutant in ~~subsection (a) of the definition of "significant" in R18-2-101~~ R18-2-101(130)(a), whichever is less.
  - b. Any combination of regulated air pollutants in a quantity greater than 2 1/2 tons.

**C.** Actual quantities of emissions shall be determined using the following emission factors or data:

1. Whenever available, emissions estimates shall either be calculated from continuous emissions monitors certified pursuant to 40 CFR 75, Subpart C and referenced appendices, or data quality assured pursuant to Appendix F of 40 CFR 60.

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2. When sufficient data pursuant to subsection (C)(1) is not available, emissions estimates shall be calculated from data from source performance tests conducted pursuant to R18-2-312 in the calendar year being reported or, when not available, conducted in the most recent calendar year representing the operating conditions of the year being reported.
  3. When sufficient data pursuant to subsection (C)(1) or ~~(C)(2) (2)~~ is not available, emissions estimates shall be calculated using emissions factors from EPA Publication No. AP-42 "Compilation of Air Pollutant Emission Factors," Volume I: Stationary Point and Area Sources, Fifth Edition, 1995, U.S. Environmental Protection Agency, Research Triangle Park, NC, including Supplements A through F and all updates published through July 1, 2011 (and no future editions). AP-42 which is incorporated by reference and is on file with the Department of Environmental Quality and the Office of Secretary of State and AP-42 can be obtained from the Superintendent of Documents, Government Printing Office, 732 North Capitol Street, NW, Washington, D.C. 20402 20401, telephone (202) 783-3238 512-1800, or by downloading the document from the EPA Technology Transfer Network, computer modem number (919) 541-5742, setting 8 N 1, VT100, or ANSI web site for the EPA Clearinghouse for Emission Inventories and Emission Factors.
  4. When sufficient data pursuant to subsections (C)(1) through ~~(C)(3) (3)~~ is not available, emissions estimates shall be calculated from material balance using engineering knowledge of process.
  5. When sufficient data pursuant to subsections (C)(1) through ~~(C)(4) (4)~~ is not available, emissions estimates shall be calculated by equivalent methods approved by the Director. The Director shall only approve methods that are demonstrated as accurate and reliable as the applicable method one of the methods in subsections (C)(1) through (4).
- D. Actual quantities of emissions calculated under subsection (C) shall be determined on the basis of actual operating hours, production rates, in-place process control equipment, operational process control data, and types of materials processed, stored, or combusted.
- E. An amendment to an annual emission inventory questionnaire, containing the documentation required by subsection (B)(3), shall be submitted to the Director by any source whenever it discovers or receives notice, within two years of the original submittal, that incorrect or insufficient information was submitted to the Director by a previous questionnaire. If the incorrect or insufficient information resulted in an incorrect annual emissions fee, the Director shall require that additional payment be made or shall apply an amount as a credit to a future annual emissions fee. The submittal of an amendment under this subsection (shall) not subject the owner or operator to an enforcement action or a civil or criminal penalty if the original submittal of incorrect or insufficient information was due to reasonable cause and not ~~willful~~ willful neglect.
- F. The Director may require submittal of supplemental emissions inventory questionnaires for air contaminants pursuant to A.R.S. §§ 49-422, 49-424, and 49-426.03 through 49-426.08.

**R18-2-330. Public Participation**

- A. The Director shall provide public notice, an opportunity for public comment, and an opportunity for a hearing before taking any of the following actions:
1. A permit issuance or renewal of a permit,
  2. A significant permit revision,
  3. Revocation and reissuance or reopening of a permit,
  4. Any conditional orders pursuant to R18-2-328,
  5. Granting a variance from a general permit under R18-2-507 and R18-2-1705.
- B. The Director shall provide public notice of receipt of complete applications for permits or permit revisions subject to Article 4 of this Chapter ~~to construct or make a major modification to major sources~~ by publishing a notice in a newspaper of general circulation in the county where the source is or will be located.
- C. The Director shall provide the notice required pursuant to subsection (A) as follows:
1. The Director shall publish the notice once each week for two consecutive weeks in two newspapers of general circulation in the county where the source is or will be located.
  2. The Director shall mail a copy of the notice to persons on a mailing list developed by the Director consisting of those persons who have requested in writing to be placed on such a mailing list.
- D. The notice required by subsection (C) shall include the following:
1. Identification of the affected facility;
  2. Name and address of the permittee or applicant;
  3. Name and address of the permitting authority processing the permit action;
  4. The activity or activities involved in the permit action;
  5. The emissions change involved in any permit revisions;
  6. The air contaminants to be emitted;
  7. If applicable, that a notice of confidentiality has been filed under R18-2-305;
  8. If applicable, that the source has submitted a risk management analysis under R18-2-1708;
  9. A statement that any person may submit written comments, or a written request for a public hearing, or both, on the proposed permit action, along with the deadline for such requests or comments;
  10. The name, address, and telephone number of a person from the Department from whom additional information may

- be obtained;
11. Locations where copies of the permit or permit revision application, the proposed permit, and all other materials available to the Director that are relevant to the permit decision may be reviewed, including the closest Department office, and the times at which they shall be available for public inspection.
  12. The Director shall include a statement in the public notice if the permit or permit revision would result in the generation of emission reduction credits under R18-2-1204, or the utilization of emission reduction credits under R18-2-1206.
- E. The Director shall hold a public hearing to receive comments on petitions for conditional orders which would vary from requirements of the applicable implementation plan. For all other actions involving a proposed permit, the Director shall hold a public hearing only upon written request. If a public hearing is requested, the Director shall schedule the hearing and publish notice as described in A.R.S. § 49-444 and subsection (D). The Director shall give notice of any public hearing at least 30 days in advance of the hearing.
- F. At the time the Director publishes the first notice under subsection (C)(1), the applicant shall post a notice containing the information required in subsection (D) at the site where the source is or may be located. Consistent with federal, state, and local law, the posting shall be prominently placed at a location under the applicant's legal control, adjacent to the nearest public roadway, and visible to the public using the public roadway. If a public hearing is to be held, the applicant shall place an additional posting providing notice of the hearing. Any posting shall be maintained until the public comment period is closed.
- G. The Director shall provide at least 30 days from the date of its first notice for public comment to receive comments and requests for a hearing. The Director shall keep a record of the commenters and of the issues raised during the public participation process and shall prepare written responses to all comments received. At the time a final proposed permit is submitted to EPA, in the case of a Class I permit, or a final decision is made, in the case of a Class II permit, the record and copies of the Director's responses shall be made available to the applicant and all commenters.

**R18-2-334. Minor New Source Review**

**A. Applicability.**

1. Except as provided in subsection (A)(4), this Section shall apply to the following activities:
  - a. Construction of any new Class I or Class II source, including the construction of any source requiring a Class II permit under R18-2-302.01(C)(4); or
  - b. Any minor NSR modification to a Class I or Class II source.
2. This Section shall apply to a regulated minor NSR pollutant emitted by a new stationary source, if the source will have the potential to emit that pollutant at an amount equal to or greater than the permitting exemption threshold.
3. This Section shall apply to an increase in emissions of a regulated minor NSR pollutant from a minor NSR modification, if the modification would increase the source's potential to emit that pollutant by an amount equal to or greater than the permitting exemption threshold.
4. This Section shall not apply to the emissions of a pollutant from any of the activities identified in this subsection, if the emissions of that pollutant are subject to Article 4 of this Chapter.

**B.** No person shall begin actual construction of a new stationary source, or minor NSR modification, subject to this Section without first obtaining a permit, a permit revision, a proposed final permit, or a proposed final permit revision from the Director in accordance with R18-2-304.

**C.** The Director shall not issue a proposed final Class I permit or permit revision or a Class II permit or permit revision subject to this Section to a person proposing to construct a new source or make a minor NSR modification unless the source or modification meets one of the following conditions for each regulated minor NSR pollutant subject to this Section:

1. The owner or operator elects to implement RACT.
  - a. In the case of a new source, the owner or operator shall implement RACT for each emissions unit that has the potential to emit a regulated minor NSR pollutant in an amount equal to or greater than 20% of the permitting exemption threshold.
  - b. In the case of a minor NSR modification, the owner or operator shall implement RACT for each emissions unit that will experience an increase in the potential to emit a regulated minor NSR pollutant equal to or greater than 20% of the permitting exemption threshold.
  - c. When it is technically feasible and otherwise consistent with the definition of RACT to apply the same devices, systems, process modifications, work practices or other apparatus or techniques to a group of emissions units, that group of emissions units shall be treated as a single emissions unit for purposes of subsections (C)(1)(a) and (b). The following are examples of situations to which this subsection may apply:
    - i. Emissions from a group of emissions units can be vented to a single control device.
    - ii. A low-VOC coating can be used in several spray-painting booths.
2. An ambient air quality assessment demonstrates that emissions from the source or minor NSR modification will not interfere with attainment or maintenance of a standard imposed in Article 2 of this Chapter.
  - a. An owner or operator may elect to have the Director perform a SCREEN model of its emissions. If the results of

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the SCREEN model indicate that the source or minor NSR modification will interfere with attainment or maintenance of a standard imposed in Article 2 of this Chapter, the owner or operator may perform a more refined model to make the demonstration required by this subsection.

- b. The requirements of this subsection shall be satisfied, if the results of the SCREEN or more refined modeling conducted pursuant to subsection (B)(2)(a) demonstrate either of the following:
  - i. Ambient concentrations resulting from emissions from the source or modification combined with existing concentrations of regulated minor NSR pollutants will not cause or exacerbate the violation of a standard imposed in Article 2 of this Chapter.
  - ii. Emissions from the source or minor modification will have an ambient impact below the significance levels as defined in R18-2-401.
- c. The assessment required by this subsection shall take into account any limitations, controls or emissions decreases that are or will be enforceable in the permit or permit revision for the source.

**D. RACT Determinations.**

- 1. Except as otherwise provided in this subsection, the Director shall determine RACT on the basis of a case-by-case analysis performed by the permit applicant of the emission reduction methods available for each emission unit subject to the RACT requirement under subsection (C)(1).
- 2. The Director shall accept a requirement proposed by a permit applicant as RACT under subsection (C)(1) if it complies with the most recently adopted of the following guidelines or standards in effect at the time of the application:
  - a. A control technique guideline issued by the Administrator under section 108(f)(1) of the Act.
  - b. An emissions standard established or revised by the Administrator for the same type of source under section 111 or 112 of the Act after November 15, 1990.
  - c. An applicable requirement of this Chapter or of air quality control regulations adopted by a County under A.R.S. § 49-479 that has been specifically identified as constituting RACT.
  - d. A RACT standard imposed on the same type of source by a general permit.
  - e. A RACT standard imposed on the same type of source under this Section no more than 10 years before submission of the application by the permit applicant. To facilitate identification of previously imposed RACT standards, the Director shall establish an online database of RACT determinations made under this Section.

**E. Notwithstanding an election to adopt RACT under subsection (C)(1), a permit applicant subject to this Section shall conduct an ambient air quality impact assessment under subsection (C)(2) upon the Director's request. The Director shall make such a request, if there is reason to believe that a source or minor NSR modification could interfere with attainment or maintenance of a standard imposed in Article 2 of this Chapter. In making that determination, the Director shall take into consideration:**

- 1. The source's emission rates.
- 2. The location of emission units within the facility and their proximity to the ambient air.
- 3. The terrain in which the source is or will be located.
- 4. The source type.
- 5. The location and emissions of nearby sources.
- 6. Background concentrations of regulated minor NSR pollutants.

**F. The Director shall deny an application for a Class I permit or permit revision or a Class II permit or permit revision subject to this Section, if an assessment conducted pursuant to subsection (C)(2) demonstrates that the source or modification will interfere with attainment or maintenance of a standard imposed in Article 2 of this Chapter.**

**G. An application for a permit or permit revision subject to this Section may be processed as a minor permit revision if one of the following conditions is satisfied for each emission unit and each pollutant subject to subsection (C):**

- 1. A RACT standard is imposed under subsection (D)(2).
- 2. The results of the SCREEN model for a regulated minor NSR pollutant show expected concentrations, including background concentrations, that are less than 75% of the applicable standard imposed in Article 2 of this Chapter.

**H. All modeling required pursuant to this Section shall be conducted in accordance with 40 CFR 51, Appendix W.**

**I. The Director shall specify those conditions in the permit that are implemented pursuant to this Section. The specified conditions shall be included in subsequent permit renewals unless modified pursuant to this Section or Article 4 of this Chapter.**

**J. Delayed Effective Date. This Section shall take effect on the effective date of the Administrator's action approving it as part of the state implementation plan.**

**ARTICLE 4. PERMIT REQUIREMENTS FOR NEW MAJOR SOURCES AND MAJOR MODIFICATIONS TO EXISTING MAJOR SOURCES**

**R18-2-401. Definitions**

In addition to The following definitions the definitions contained in Article 1 of this Chapter and A.R.S. § 49-401.01, the following definitions apply to this Article:

1. “Adverse impact on visibility” means visibility impairment that interferes with the management, protection, preservation, or enjoyment of the visitor’s visual experience of a Class I area, as determined according to R18-2-410.
2. “Baseline actual emissions” means the rate of emissions, in tons per year, of a regulated NSR pollutant, as determined in accordance with subsections (2)(a) through (c).
  - a. For any existing electric utility steam generating unit, baseline actual emissions means the average rate, in tons per year, at which the unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the five-year period immediately preceding when the owner or operator begins actual construction of the project. The Director shall allow the use of a different time period upon a determination that it is more representative of normal source operation.
    - i. The average rate shall include fugitive emissions to the extent quantifiable, and emissions associated with startups, shutdowns, and malfunctions.
    - ii. The average rate shall be adjusted downward to exclude any non-compliant emissions that occurred while the source was operating above any emission limitation that was legally enforceable during the consecutive 24-month period.
    - iii. For a regulated NSR pollutant, when a project involves multiple emissions units, only one consecutive 24-month period must be used to determine the baseline actual emissions for the emissions units being changed. A different consecutive 24-month period can be used for each regulated NSR pollutant.
    - iv. The average rate shall not be based on any consecutive 24-month period for which there is inadequate information for determining annual emissions, in tons per year, and for adjusting this amount if required by subsection (2)(a)(ii).
  - b. For any existing emissions unit (other than an electric utility steam generating unit), baseline actual emissions means the average rate, in tons per year, at which the unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the 10-year period immediately preceding either the date the owner or operator begins actual construction of the project, or the date a complete permit application is received by the administrator for a permit required under 40 CFR 52.21 or by the Director for a permit required under the state implementation plan, whichever is earlier, except that the 10-year period shall not include any period earlier than November 15, 1990.
    - i. The average rate shall include fugitive emissions to the extent quantifiable, and emissions associated with startups, shutdowns, and malfunctions.
    - ii. The average rate shall be adjusted downward to exclude any non-compliant emissions that occurred while the source was operating above any emission limitation that was legally enforceable during the consecutive 24-month period. This provision applies to excess emissions associated with a malfunction.
    - iii. The average rate shall be adjusted downward to exclude any emissions that would have exceeded an emission limitation with which the major source must currently comply, had such major source been required to comply with such limitations during the consecutive 24-month period. However, if an emission limitation is part of a maximum achievable control technology standard that the Administrator proposed or promulgated under 40 CFR 63, the baseline actual emissions need only be adjusted if the state of Arizona has taken credit for such emissions reductions in an attainment demonstration or maintenance plan submitted to the Administrator pursuant to section 110(a)(1) of the Act.
    - iv. For a regulated NSR pollutant, when a project involves multiple emissions units, only one consecutive 24-month period must be used to determine the baseline actual emissions for all existing emissions units affected by the project. A different consecutive 24-month period may be used for each regulated NSR pollutant.
    - v. The average rate shall not be based on any consecutive 24-month period for which there is inadequate information for determining annual emissions, in tons per year, and for adjusting this amount if required by subsection (2)(b)(ii) or (iii).
  - c. For a new emissions unit, the baseline actual emissions for purposes of determining the emissions increase that will result from the initial construction and operation of such unit shall equal zero; and thereafter, for all other purposes, shall equal the unit’s potential to emit.
  - d. For a PAL for a stationary source, the baseline actual emissions shall be calculated for existing emissions units in accordance with the procedures contained in subsection (2)(a), and for new emissions units in accordance with the procedures contained in subsection (2)(b).
3. “Basic design parameter” means:
  - a. Except as provided in subsection (3)(c), for a process unit at a steam electric generating facility, the owner or operator may select as its basic design parameters either maximum hourly heat input and maximum hourly fuel consumption rate or maximum hourly electric output rate and maximum steam flow rate. When establishing fuel consumption specifications in terms of weight or volume, the minimum fuel quality based on Btu content shall be used for determining the basic design parameters for a coal-fired electric utility steam generating unit.
  - b. Except as provided in subsection (3)(c), the basic design parameters for any process unit that is not at a steam

- electric generating facility are maximum rate of fuel or heat input, maximum rate of material input, or maximum rate of product output. Combustion process units will typically use maximum rate of fuel input. For sources having multiple end products and raw materials, the owner or operator should consider the primary product or primary raw material when selecting a basic design parameter.
- c. If the owner or operator believes the basic design parameters in subsections (3)(a) and (b) are not appropriate for a specific industry or type of process unit, the owner or operator may propose to the Director an alternative basic design parameters for the source's process unit. If the Director approves of the use of an alternative basic design parameters, the Director shall issue a permit that is legally enforceable that records such basic design parameters and requires the owner or operator to comply with such parameters.
  - d. The owner or operator shall use credible information, such as results of historic maximum capability tests, design information from the manufacturer, or engineering calculations, in establishing the magnitude of the basic design parameters specified in subsections (3)(a) and (b).
  - e. If design information is not available for a process unit, then the owner or operator shall determine the process unit's basic design parameters using the maximum value achieved by the process unit in the five-year period immediately preceding the planned activity.
  - f. Efficiency of a process unit is not a basic design parameter.
  - g. The replacement activity shall not cause the process unit to exceed any emission limitation, or operational limitation that has the effect of constraining emissions, that applies to the process unit and that is legally enforceable.
2. "Categorical sources" means the following classes of sources:
- a. Coal cleaning plants with thermal dryers;
  - b. Kraft pulp mills;
  - e. Portland cement plants;
  - d. Primary zinc smelters;
  - e. Iron and steel mills;
  - f. Primary aluminum ore reduction plants;
  - g. Primary copper smelters;
  - h. Municipal incinerators capable of charging more than 50 tons of refuse per day;
  - i. Hydrofluoric, sulfuric, or nitric acid plants;
  - j. Petroleum refineries;
  - k. Lime plants;
  - l. Phosphate rock processing plants;
  - m. Coke oven batteries;
  - n. Sulfur recovery plants;
  - o. Carbon black plants using the furnace process;
  - p. Primary lead smelters;
  - q. Fuel conversion plants;
  - r. Sintering plants;
  - s. Secondary metal production plants;
  - t. Chemical process plants;
  - u. Fossil fuel boilers, combinations thereof, totaling more than 250 million Btu's per hour heat input;
  - v. Petroleum storage and transfer units with a total storage capacity more than 300,000 barrels;
  - w. Taconite preprocessing plants;
  - x. Glass fiber processing plants;
  - y. Charcoal production plants;
  - z. Fossil fuel fired steam electric plants and combined cycle gas turbines of more than 250 million Btu's per hour heat input.
- 3-4. "Complete" means, in reference to an application for a permit or permit revision, that the application contains all the information necessary for processing the application.
- 4-5. "Dispersion technique" means any technique that attempts to affect the concentration of a pollutant in the ambient air by any of the following:
- a. Using that portion of a stack that exceeds good engineering practice stack height;
  - b. Varying the rate of emission of a pollutant according to atmospheric conditions or ambient concentrations of that pollutant; or
  - c. Increasing final exhaust gas plume rise by manipulating source process parameters, exhaust gas parameters, stack parameters, or combining exhaust gases from several existing stacks into one stack; or other selective handling of exhaust gas streams that increases the exhaust gas plume rise. This shall not include any of the following:
    - i. The reheating of a gas stream, following use of a pollution control system, for the purpose of returning the gas to the temperature at which it was originally discharged from the facility generating the gas stream.



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- ii. The merging of exhaust gas streams under any of the following conditions:
    - (1) The source owner or operator demonstrates that the facility was originally designed and constructed with the merged gas streams;
    - (2) After July 18, 1985, the merging is part of a change in operation at the facility that includes the installation of pollution controls and is accompanied by a net reduction in the allowable emissions of a pollutant, applying only to the emission limitation for that pollutant; or
    - (3) Before July 8, 1985, the merging was part of a change in operation at the facility that included the installation of emissions control equipment or was carried out for sound economic or engineering reasons. Where there was an increase in the emission limitation or, in the event that no emission limitation was in existence prior to the merging, an increase in the quantity of pollutants actually emitted prior to the merging, the Department shall presume that merging was significantly motivated by an intent to gain emissions credit for greater dispersion. Absent a demonstration by the source owner or operator that merging was not significantly motivated by such intent, the Department shall deny credit for the effects of the merging in calculating the allowable emissions for the source.
  - iii. Smoke management in agricultural or silvicultural prescribed burning programs.
  - iv. Episodic restrictions on residential woodburning and open burning.
  - v. Techniques that increase final exhaust gas plume rise if the resulting allowable emissions of sulfur dioxide from the facility do not exceed 5,000 tons per year.
6. “Existing emissions unit” is any emissions unit that is currently in existence and that is not a new emissions unit. A replacement unit is an existing emissions unit.
- ~~5-7.~~ “High terrain” means any area having an elevation of 900 feet or more above the base of the stack of a source.
- ~~6-8.~~ “Innovative control technology” means any system of air pollution control that has not been adequately demonstrated in practice but would have a substantial likelihood of achieving greater continuous emissions reduction than any control system in current practice, or of achieving at least comparable reductions at lower cost in terms of energy, economics, or nonair quality environmental impacts.
- ~~7-9.~~ “Low terrain” means any area other than high terrain.
- ~~8-10.~~ “Lowest achievable emission rate” (LAER) means, for any source, the more stringent rate of emissions based on one of the following:
- a. The most stringent emissions limitation that is contained in ~~the~~ any implementation plan approved or promulgated under sections 110 or 172 of the Act ~~SIP of any state~~ for the class or category of stationary source, unless the owner or operator of the proposed stationary source demonstrates that the ~~limitations are~~ limitation is not achievable; or
  - b. The most stringent emissions limitation that is achieved in practice by the class or category of stationary source. This limitation, when applied to a modification, means the lowest achievable emissions rate for the new or modified emissions units within the stationary source. The application of this term shall not permit a proposed new or modified stationary source to emit any pollutant in excess of the amount allowable under applicable standards of performance in Articles 9 and 11 of this Chapter.
  - e. ~~For purposes of this definition only, the term “any state” means a State, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, and American Samoa and includes the Commonwealth of the Northern Mariana Islands.~~
- ~~9-11.~~ “Major source” means:
- a. Any stationary source located in a nonattainment area that emits, or has the potential to emit, 100 tons per year or more of any ~~conventional air~~ regulated NSR pollutant, except as follows that the following thresholds shall apply in areas subject to Subpart 2, Subpart 3 or Subpart 4 of Part D, Title I of the Act:

| Pollutant Emitted    | Nonattainment Pollutant and Classification  | Quantity Threshold tons/year or more |
|----------------------|---|--------------------------------------|
| Carbon Monoxide (CO) | <del>CO, Serious, with stationary sources as more than 25% of source inventory</del> <u>if stationary sources contribute significantly to CO levels in the area as determined under rules issued by the Administrator</u> | 50                                   |

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|----------------------------------|----------------------------|----|
| Volatile Organic Compounds (VOC) | Ozone, Serious             | 50 |
| VOC                              | Ozone, Severe              | 25 |
| PM <sub>10</sub>                 | PM <sub>10</sub> , Serious | 70 |
| NO <sub>x</sub>                  | Ozone, Serious             | 50 |
| NO <sub>x</sub>                  | Ozone, Severe              | 25 |

- b. Any stationary source located in an attainment or unclassifiable area that emits, or has the potential to emit, 100 tons per year or more of any ~~conventional air pollutant~~ regulated NSR pollutant if the source is classified as a Categorical Source, or 250 tons per year or more of any ~~pollutant subject to regulation under the Act~~ regulated NSR pollutant if the source is not classified as a Categorical Source;
  - e. ~~Any change to a minor source, except for VOC or NO<sub>x</sub> emission increases at minor sources in serious or severe ozone nonattainment areas, that would increase its emissions to the qualifying levels in subsections (a) or (b);~~
  - d. ~~Any change in VOC or NO<sub>x</sub> at a minor source in serious or severe ozone nonattainment areas that would be "significant" under R18-2-405(B) and that would increase its emissions to the qualifying levels in subsection (a);~~
  - e-c. ~~Any stationary source that emits, or has the potential to emit, five or more tons of lead per year;~~
  - f. ~~Any source classified as major undergoing modification that meets the definition of reconstruction;~~
  - g-d. ~~A major source that is major for VOC or nitrogen oxides shall be considered major for ozone; or~~
  - h. ~~A major source that is major for oxides of nitrogen shall be major for ozone in nonattainment areas classified as marginal, moderate, serious, or severe.~~
12. "New emissions unit" means any emissions unit which is (or will be) newly constructed and which has existed for less than two years from the date such emissions unit first operated.
  13. "Plantwide applicability limitation" or "PAL" means an emission limitation that is based on the baseline actual emissions of all emissions units at the stationary source that emit or have the potential to emit the PAL pollutant, expressed in tons per year, for a pollutant at a major source, that is enforceable as a practical matter and established source-wide in accordance with this Section.
  14. "PAL allowable emissions" means "allowable emissions" as defined in R18-2-101, except that the allowable emissions for any emissions unit shall be calculated considering any emission limitations that are enforceable as a practical matter on the emissions unit's potential to emit.
  15. PAL effective date generally means the date of issuance of the PAL permit. However, the PAL effective date for an increased PAL is the date any emissions unit that is part of the PAL major modification becomes operational and begins to emit the PAL pollutant.
  16. "PAL effective period" means the period beginning with the PAL effective date and ending 10 years later.
  17. "PAL major modification" means any physical change in or change in the method of operation of the PAL source that causes it to emit the PAL pollutant at a level equal to or greater than the PAL.
  18. "PAL permit" means the permit issued by the Director that establishes a PAL for a major source.
  19. "PAL pollutant" means the pollutant for which a PAL is established at a major source.
  20. "Projected actual emissions" means:
    - a. The maximum annual rate, in tons per year, at which an existing emissions unit is projected to emit a regulated NSR pollutant during any 12-month period in the 60 calendar months following the date the unit resumes regular operation after the project, or in any 12-month period in the 120 calendar months following that date if the project involves increasing the design capacity or potential to emit of any emissions unit for that regulated NSR pollutant and full utilization of the unit would result in a significant emissions increase or a significant net emissions increase at the major source.
    - b. In determining the projected actual emissions before beginning actual construction, the owner or operator of the major source:
      - i. Shall consider all relevant information, including but not limited to, historical operational data, the company's own representations, the company's expected business activity and the company's highest projections of business activity, the company's filings with the county, state or federal regulatory authorities, and compliance plans under these Regulations; and
      - ii. Shall include fugitive emissions to the extent quantifiable;
      - iii. Shall include emissions associated with startups and shutdowns, except emissions from a shutdown associated with a malfunction; and
      - iv. Shall exclude, only for calculating any increase in emissions that results from the particular project, that portion of the unit's emissions following the project that an existing unit could have accommodated during the consecutive 24-month period used to establish the baseline actual emissions and that are also unrelated to the particular project, including any increased utilization due to product demand growth; or
    - c. In lieu of using the method set out subsections (20)(b)(i) through (iv), the owner or operator may elect to use the

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- emissions unit's potential to emit, in tons per year.
- 10-21. "Reconstruction" of sources located in nonattainment areas shall be presumed to have taken place if the fixed capital cost of the new components exceeds 50% of the fixed capital cost of a comparable entirely new stationary source, as determined in accordance with the provisions of 40 CFR 60.15(f)(1) through (3).
22. "Replacement unit" means an emissions unit for which all the criteria listed in subsections (22)(a) through (d) are met. No creditable emission reductions shall be generated from shutting down the existing emissions unit that is replaced.
- a. The emissions unit is a reconstructed unit within the meaning of 40 CFR 60.15(b)(1), or the emissions unit completely takes the place of an existing emissions unit.
  - b. The emissions unit is identical to or functionally equivalent to the replaced emissions unit.
  - c. The replacement does not alter the basic design parameters of the process unit.
  - d. The replaced emissions unit is permanently removed from the major source, otherwise permanently disabled, or permanently barred from operation by a permit that is enforceable as a practical matter. If the replaced emissions unit is brought back into operation, it shall constitute a new emissions unit.
- 11-23. "Resource recovery project" means any facility at which solid waste is processed for the purpose of extracting, converting to energy, or otherwise separating and preparing solid waste for reuse. Only energy conversion facilities that utilize solid waste that provides more than 50% of the heat input shall be considered a resource recovery project under this Article.
24. "Significant emissions unit" means an emissions unit that emits or has the potential to emit a PAL pollutant in an amount that is equal to or greater than the significant level for that PAL pollutant, but less than the amount that would qualify the unit as a major emissions unit.
- 12-25. "Significance levels" means the following ambient concentrations for the enumerated pollutants:

| Pollutant                              | Averaging Time               |                              |                       |                      |   |
|--|------------------------------|------------------------------|-----------------------|----------------------|---|
|  | Annual                       | 24-Hour                      | 8-Hour                | 3-Hour               | 1-Hour  |
| SO <sub>2</sub>                        | 1 µg/m <sup>3</sup>          | 5 µg/m <sup>3</sup>          |                       | 25 µg/m <sup>3</sup> |   |
| NO <sub>2</sub>                        | 1 µg/m <sup>3</sup>          |                              |                       |                      |   |
| CO                                     |                              |                              | 0.5 mg/m <sup>3</sup> |                      | 2 <del>µg/m<sup>3</sup></del> mg/m <sup>3</sup> |
| PM <sub>10</sub>                       | 1 µg/m <sup>3</sup>          | 5 µg/m <sup>3</sup>          |                       |                      |   |
| <u>PM<sub>2.5</sub> Class I area</u>   | <u>0.06 µg/m<sup>3</sup></u> | <u>0.07 µg/m<sup>3</sup></u> |                       |                      |   |
| <u>PM<sub>2.5</sub> Class II area</u>  | <u>0.3 µg/m<sup>3</sup></u>  | <u>1.2 µg/m<sup>3</sup></u>  |                       |                      |   |
| <u>PM<sub>2.5</sub> Class III area</u> | <u>0.3 µg/m<sup>3</sup></u>  | <u>1.2 µg/m<sup>3</sup></u>  |                       |                      |   |

Except for the annual pollutant concentrations, the Department shall deem that exceedance of significance levels has occurred when the ambient concentration of the above pollutant is exceeded more than once per year at any one location. If the concentration occurs at a specific location and at a time when Arizona ambient air quality standards for the pollutant are not violated, the significance level does not apply.

26. "Small emissions unit" means an emissions unit that emits or has the potential to emit the PAL pollutant in an amount less than the significant level for that PAL pollutant.

**R18-2-402. General**

- A. The preconstruction review requirements of this Article shall apply to the construction of any new major source or any project at an existing major source.
- B. The requirements of R18-2-403 through R18-2-410 apply to the construction of a major source or a major modification of any existing stationary source, except as this Article otherwise provides.
- ~~A-C.~~ No person shall ~~commence~~ begin actual construction of a new major source or a the major modification of a source subject to the requirements of R18-2-403 through R18-2-410 without first obtaining a proposed final permit or a permit revision from the Director, pursuant to R18-2-307(A)(2), stating that the major source or major modification shall meet those requirements.
- D. The requirements of this Article apply to projects at major sources in accordance with the following principles.
  1. Except as otherwise provided in subsection (E), a project is a major modification for a regulated NSR pollutant if it causes both a significant emissions increase and a significant net emissions increase. The project is not a major modification if it does not cause a significant emissions increase. If the project causes a significant emissions increase, then the project is a major modification only if it also results in a significant net emissions increase.
  2. The procedure for calculating before beginning actual construction whether a significant emissions increase will occur depends upon the types of emissions units being modified as set forth in subsections (D)(3) through (6). The procedure for calculating before beginning actual construction whether a significant net emissions increase will occur at the major source is set forth in the definition of "net emissions increase" in R18-2-101. Regardless of any such pre-

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- construction projections, a major modification results if the project causes a significant emissions increase and a significant net emissions increase.
3. Actual-to-projected-actual applicability test for projects that only involve existing emissions units. A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference between the projected actual emissions and the baseline actual emissions, for each existing emissions unit, equals or exceeds the significant amount for that pollutant.
  4. Actual-to-potential applicability test for projects that only involve new emissions units. A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference between the potential to emit from each new emissions unit following completion of the project and the baseline actual emissions of these units before the project equals or exceeds the significant amount for that pollutant.
  5. [Reserved.]
  6. Hybrid applicability test for projects that involve both new emissions units and existing emissions units. A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the emissions increases for each emissions unit, using the method specified in subsection (D)(4), as applicable with respect to each emissions unit, equals or exceeds the significant amount for that pollutant.
- E.** Any major source with a PAL for a regulated NSR pollutant shall comply with R18-2-412.
- F.** This subsection applies with respect to any regulated NSR pollutant emitted from projects at existing emissions units at a major stationary source (other than projects at a source with a PAL) in circumstances where there is a reasonable possibility, within the meaning of subsection (F)(6) of this Section, that a project that is not a part of a major modification may result in a significant emissions increase of such pollutant and the owner or operator elects to use the method specified in the definition of “projected actual emissions” in R18-2-401(20)(b)(i) through (iv) for calculating projected actual emissions.
1. Before beginning actual construction of the project, the owner or operator shall document and maintain a record of the following information:
    - a. A description of the project;
    - b. Identification of the emissions unit(s) with emissions of a regulated NSR pollutant that could be affected by the project;
    - c. A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions, the projected actual emissions, the amount of emissions excluded under the definition of “projected actual emissions” at R18-2-401(20)(b)(iii) and an explanation for why such amount was excluded; and
    - d. Any netting calculations, if applicable.
  2. If the emissions unit is an existing electric utility steam generating unit, before beginning actual construction, the owner or operator shall provide a copy of the information set out in subsection (F)(1) to the Director. Nothing in this subsection shall be construed to require the owner or operator of such a unit to obtain any determination from the Director before beginning actual construction.
  3. The owner or operator shall monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any emissions unit identified in subsection (F)(1)(b); and calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five years following resumption of regular operations after the change, or for a period of 10 years following resumption of regular operations after the change if the project increases the design capacity or potential to emit of that regulated NSR pollutant at such emissions unit. For purposes of this subsection, fugitive emissions (to the extent quantifiable) shall be monitored if the emissions unit is part of a section 302(j) category or if the emissions unit is located at a major stationary source that belongs to a section 302(j) category.
  4. The owner or operator shall submit a report to the Director if for a calendar year the annual emissions, in tons per year, from the project identified in subsection (F)(1)(a) exceed the sum of the baseline actual emissions, as documented and maintained under subsection (F)(1)(c), by a significant amount for that regulated NSR pollutant, and if the emissions differ from the preconstruction projection as documented and maintained under subsection (F)(1)(c). The owner or operator shall submit the report to the Director within 60 days after the end of the calendar year. The report shall contain the following:
    - a. The name, address and telephone number of the major source;
    - b. The annual emissions as calculated pursuant to subsection (F)(3); and
    - c. Any other information that the owner or operator wishes to include in the report, such as an explanation as to why the emissions differ from the preconstruction projection.
  5. Notwithstanding subsection (F)(4), if any existing emissions unit identified in subsection (F)(1)(b) is an electric utility steam generating unit, the owner or operator shall submit a report to the Director within 60 days after the end of each calendar year during which the owner or operator must generate records under subsection (F)(3). The report shall document the unit’s post-project annual emissions during the calendar year that preceded submission of the report.

6. A “reasonable possibility” under subsection (F) occurs when the owner or operator calculates the project to result in one of the following:
- a. A projected actual emissions increase of at least 50% of the amount that is a significant emissions increase (without reference to the amount that is a significant net emissions increase) for the regulated NSR pollutant.
  - b. A projected actual emissions increase that, added to the amount of emissions excluded under the definition of “projected actual emissions” in R18-2-401(20)(b)(iv), sums to at least 50% of the amount that is a significant emissions increase (without reference to the amount that is a significant net emissions increase) for the regulated NSR pollutant. For a project for which a reasonable possibility occurs only within the meaning of subsection (F)(6)(b), and not also within the meaning of subsection (F)(6)(a), subsections (F)(2) through (F)(5) do not apply to the project.

~~B.G.~~ An application for a permit or permit revision under this Article, other than a PAL permit pursuant to R18-2-412, shall not be considered complete unless the application demonstrates that:

1. The requirements in subsection ~~(C)~~ (H) are met;
2. The more stringent of the applicable new source performance standards in Article 9 of this Chapter or the existing source performance standards in Article 7 of this Chapter are applied to the proposed new major source or major modification of a major source;
3. The visibility requirements contained in R18-2-410 are satisfied;
4. All applicable provisions of Article 3 of this Chapter are met;
5. The new major source or major modification will be in compliance with whatever emission limitation, design, equipment, work practice or operational standard, or combination thereof is applicable to the source or modification. The degree of emission limitation required for control of any pollutant under this Article shall not be affected in any manner by:
  - a. Stack height in excess of GEP stack height except as provided in R18-2-332; or
  - b. Any other dispersion technique, unless implemented prior to December 31, 1970;
6. The new major source or major modification will not exceed the applicable standards for hazardous air pollutants contained in this Chapter;
7. The new major source or major modification will not exceed the limitations, if applicable, on emission from nonpoint sources contained in Article 6 of this Chapter;
8. A stationary source that will emit five or more tons of lead per year will not violate the ambient air quality standards for lead contained in R18-2-206;
9. The new major source or major modification will not have an adverse impact on visibility, as determined according to R18-2-410.

~~C.H.~~ Except for assessing air quality impacts within Class I areas, the air impact analysis required to be conducted as part of a permit application shall initially consider only the geographical area located within a 50 kilometer radius from the point of greatest emissions for the new major source or major modification. The Director, on his own initiative or upon receipt of written notice from any person shall have the right at any time to request an enlargement of the geographical area for which an air quality impact analysis is to be performed by giving the person applying for the permit or permit revision written notice thereof, specifying the enlarged radius to be so considered. In performing an air impact analysis for any geographical area with a radius of more than 50 kilometers, the person applying for the permit or permit revision may use monitoring or modeling data obtained from major sources having comparable emissions or having emissions which are capable of being accurately used in such demonstration, and which are subjected to terrain and atmospheric stability conditions which are comparable or which may be extrapolated with reasonable accuracy for use in such demonstration.

~~D.L.~~ Unless the requirement has been satisfied pursuant to Article 3 of this Chapter, the Director shall comply with following requirements:

1. ~~Within 60 days after receipt of an application for a permit or permit revision subject to this Article, or any addition to such application, the Director shall advise the applicant of any deficiency. The date of receipt of the application shall be, for the purpose of this Section, the date on which the Director received all required information. The permit application shall not be deemed complete if the Director fails to meet the requirements of this subsection.~~
2. A copy of any notice required by R18-2-330 shall be sent to the permit applicant, to the Administrator, and to the following officials and agencies having cognizance over the location where the proposed major source or major modification would occur:
  - a. The air pollution control officer, if one exists, for the county wherein the proposed or existing source that is the subject of the permit or permit revision application is located;
  - b. The county manager for the county wherein the proposed or existing source that is the subject of the permit or permit revision application is located;
  - c. The city or town managers of the city or town which contains, and any city or town the boundaries of which are within 5 miles of, the location of the proposed or existing source that is the subject of the permit or permit revision application;
  - d. Any regional land use planning agency with authority for land use planning in the area where the proposed or

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existing source that is the subject of the permit or permit revision application is located; and  
e. Any state, Federal Land Manager, or Indian governing body whose lands may be affected by emissions from the proposed source or modification.

3- ~~The Director shall take final action on the application within one year of the proper filing of the completed application. The Director shall notify the applicant in writing of his approval or denial.~~

4.2. ~~The Director shall terminate~~ The authority to construct and operate a new major source or major modification under a permit or permit revision issued under this Article shall terminate if the owner or operator does not commence the proposed construction or major modification is not begun within 18 months of issuance or if, if during the construction or major modification, the owner or operator suspends work is suspended for more than 18 months. The Director may extend the 18-month period upon a satisfactory showing that an extension is justified. This provision does not apply to the time period between construction of the approved phases of a phased construction project; each phase must commence construction within 18 months of the projected and approved commencement date.

**R18-2-403. Permits for Sources Located in Nonattainment Areas**

A. Except as provided in subsections (C) through (G) below, no permit or permit revision shall be issued under this Article to a person proposing to construct a new major source or make a major modification that is major for the pollutant for which the area is designated nonattainment to a source located in any nonattainment area for the pollutant(s) for which the source is classified as a major source or the modification is classified as a major modification unless:

1. The person demonstrates that the new major source or the major modification will meet an emission limitation which is the lowest achievable emission rate (LAER) for that source for that specific pollutant(s) regulated NSR pollutant. ~~In determining lowest achievable emission rate for a reconstructed stationary source, the provisions of 40 CFR 60.15(f)(4) shall be taken into account in assessing whether a new source performance standard is applicable to such stationary source.~~

2. The person demonstrates that all existing major sources owned or operated by that person (or any entity controlling, controlled by, or under common control with that person) in the state are in compliance with, or on a schedule of compliance for, all conditions contained in permits of each of the sources and all other applicable emission limitations and standards under the Act and this Chapter.

3. The person demonstrates that emission reductions for the specific pollutant(s) from source(s) in existence in the allowable offset area of the new major source or major modification (whether or not under the same ownership) meet the offset ~~and net air quality benefit~~ requirements of R18-2-404.

B. No permit or permit revision under this Article shall be issued to a person proposing to construct a new major source or make a major modification to a major source located in a nonattainment area unless:

1. The person performs an analysis of alternative sites, sizes, production processes, and environmental control techniques for such new major source or major modification; and

2. The Director determines that the analysis demonstrates that the benefits of the new major source or major modification significantly outweigh the environmental and social costs imposed as a result of its location, construction, or modification.

C. At such time that a particular source or modification becomes a major ~~stationary~~ source or major modification solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as restriction on hours of operation, then the requirements of this Section shall apply to the source or modification as though construction had not yet commenced on the source or modification.

D. Secondary emissions shall not be considered in determining the potential to emit of a new source or modification and therefore whether the new source or modification is major. However, if a new source or modification is subject to this Section on the basis of its direct emissions, a permit or permit revision under this Article to construct the new source or modification shall be denied unless the ~~conditions specified in subsections (A)(1) and (2)~~ requirements of subsection (A)(3) and R18-2-404 are met for reasonably quantifiable secondary emissions caused by the new source or modification.

E. A permit to construct a new major source or major modification shall be denied unless the conditions specified in subsections (A)(1), (2), and (3) are met for fugitive emissions caused by the new source or modification. However, these conditions shall not apply to a new major source or major modification that would be a major source or major modification only if fugitive emissions, to the extent quantifiable, are considered in calculating the potential emissions of the source or modification, and the source ~~is not either a categorical source or belongs to the category of sources for which New Source Performance Standards under 40 CFR 60 or National Emission Standards for Hazardous Air Pollutants under 40 CFR 61 were promulgated by the Administrator prior to August 7, 1980.~~ does not belong to a section 302(j) category.

F. The requirements of subsection (A)(3) shall not apply to temporary emission emissions units sources, such as pilot plants, and portable sources, ~~which are only temporarily located in facilities that will be relocated outside of the nonattainment area and the construction phase of a new source, if those units will operate for no more than 12 months in the nonattainment area,~~ are otherwise regulated by in compliance with the requirement to obtain a permit under this Chapter; and are in compliance with the conditions of that permit.

- G. A decrease in actual emissions shall be considered in determining the potential of a new source or modification to emit only to the extent that the Director has not relied on it in issuing any permit or permit revision under this Article or the state has not relied on it in demonstrating attainment or reasonable further progress.
- H. Within 30 days of the issuance of any permit under this Section, the Director shall submit control technology information from the permit to the Administrator for the purposes listed in ~~Section~~ section 173(d) of the Act.

**R18-2-404. Offset and Net Air Quality Benefit Standards**

- ~~A. Increased emissions by a major source or major modification subject to this Article shall be offset by reductions in the emissions of each pollutant for which the area has been designated as nonattainment and for which the source or modification is classified as major. The offset may be obtained by reductions in emissions from the source or modification or from any other source in the allowable offset area. Credit for an emissions offset can be used only if it has not been relied upon in demonstrating attainment or reasonable further progress and if it has not been relied upon previously in issuing a permit or permit revision under this Article under R18-2-402 and R18-2-403 or is not otherwise required under this Chapter or under any provision of the SIP.~~
- ~~B. An offset shall not be sufficient unless reductions of total emissions for the particular pollutant for which the offset is required will be:
 
  - 1. Obtained from sources within the allowable offset area;
  - 2. Contemporaneous with the operation of the new major source or major modification;
  - 3. Less than the baseline of the total emissions for that pollutant, except in ozone nonattainment areas classified as moderate, serious, or severe; and
  - 4. Sufficient to demonstrate that emissions from the new major source or major modification, together with the offset, will result in reasonable further progress for that pollutant.~~
- ~~C. In ozone nonattainment areas classified as marginal, total emissions of VOC and oxides of nitrogen from other sources shall offset those proposed or permitted from the major source or major modification by a ratio of at least 1.10 to 1. In ozone nonattainment areas classified as moderate, total emissions of VOC and oxides of nitrogen from other sources shall offset those proposed or permitted from the major source or major modification by a ratio of at least 1.15 to 1. New major sources and major modifications in serious and severe ozone nonattainment areas shall comply with this Section and R18-2-405.~~
- ~~D. Only intrapollutant emission offsets shall be allowed. Intrapollutant emission offsets for VOC shall only include offset reductions in emissions of VOC. Intrapollutant emission offsets for oxides of nitrogen shall only include offset reductions in emissions of oxides of nitrogen.~~
- ~~E. For purposes of this Section, "reasonable further progress" means compliance with the schedule of annual incremental reductions in emissions of the applicable air pollutant prescribed by the Director based on air quality modeling under R18-2-409, to provide for attainment of the applicable air quality standards by the deadlines set under Part D of Title I of the Act, or in an applicable implementation plan.~~
- ~~F. For purposes of this Article, "net air quality benefit" means that, during similar time periods, either subsection (F)(1) or (2) below is applicable:
 
  - 1. A reduction in the number of violations of the applicable Arizona ambient air quality standard within the allowable offset area has occurred and the following mathematical expression is satisfied:~~

$$\sum_{i=1}^N \frac{x_i - C}{N} \leq \sum_{j=1}^K \frac{x_j - C}{K}$$

when:

- C= The applicable Arizona ambient air quality standard.
- x<sub>i</sub>= The concentration level of the violation at the i[th] receptor for the pollutant after offsets.
- N= The number of violations for the pollutant after offsets (N ≤ K).
- x<sub>j</sub>= The concentration level of the violation at the j[th] receptor for the pollutant before offsets.
- K= The number of violations for the pollutant before offsets.

- 2. The average of the ambient concentrations within the allowable offset area after the implementation of the contemplated offsets will be less than the average of the ambient concentrations within the allowable offset area without the offsets.

~~G. Baseline further defined:~~

- 1. For the purpose of this Section, the baseline of total emissions from any sources in existence or sources that have obtained a permit or permit revision under this Article (regardless of whether or not the sources are in actual operation at the time of application for the permit or permit revision) shall be the total actual emissions at the time the application is filed. In addition, the baseline of total emissions shall consist of all emission limitations included as

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conditions on federally enforceable permits except that the offset baseline shall be the actual emissions of the source from which offset credit is obtained if:

- a. No emission limitations are applicable to a source from which offsets are being sought; or
  - b. The demonstration of reasonable further progress and attainment of ambient air quality standards is based upon the actual emissions of sources located within a designated nonattainment area.
2. If the emission limitations for a particular pollutant allow greater emissions than the potential emission rate of the source for that pollutant, the baseline shall be the potential emission rate at the time application for the permit or permit revision under this Article is filed, and emissions offset credit shall be allowed only for control below the potential emission rate.
- ~~H.~~ For an existing fuel combustion source, offset credit shall be based on the allowable emissions under the regulations or permit conditions applicable to the source for the type of fuel being burned at the time the application for the permit or permit revision under this Article is filed. If an existing source commits to switch to a cleaner fuel at some future date, emissions offset credit based on the actual emissions for the fuels involved shall not be acceptable unless:
1. The permit or permit revision under this Article for the source specifically requires the use of a specified alternative control measure that would achieve the same degree of emissions reduction if the source switches back to a dirtier fuel at some later date; and
  2. The source demonstrates to the Director that it has secured an adequate long-term supply of the cleaner fuel.
- ~~I.~~ Offsets shall be made on either a pounds per hour, pounds per day, or tons per year basis, whichever is applicable, when all facilities involved in the emission offset calculations are operating at their maximum expected or allowed production rate and, except as otherwise provided in subsection (H), utilizing the type of fuel burned at the time the application for the permit or permit revision under this Article is filed. A tons per year basis shall not be used if the new or modified source or the source offsets is not expected to operate throughout the entire year. No emissions credit may be allowed for replacing one VOC with another VOC of lesser reactivity.
- ~~J.~~ Emissions reductions achieved by shutting down an existing source or permanently curtailing production or operating hours below baseline levels may be credited, if the work force to be affected has been notified of the proposed shutdown or curtailment. No offset credit for shutdowns or curtailments shall be provided for emissions reductions that are necessary to bring a source into compliance with RACT or any other standard under an applicable implementation plan.
- ~~K.~~ The allowable offset area shall be the geographical area in which the sources are located whose emissions are being sought to offset emissions from a new major source or major modification. For the pollutants sulfur dioxide, PM10, and carbon monoxide, the allowable offset area shall be determined by atmospheric dispersion modeling. If the emission offsets are obtained from a source on the same premises or in the immediate vicinity of the new major source or major modification, and the pollutants disperse from substantially the same effective stack height, atmospheric dispersion modeling shall not be required. The allowable offset area for all other pollutants shall be the nonattainment areas for those pollutants within which the new major source or major modification is to be located.
- ~~L.~~ An emission reduction may only be used to offset emissions if the reduced level of emissions will continue for the life of the new source or modification and if the reduced level of emissions is federally and legally enforceable at the time of permit issuance. It shall be considered legally enforceable if the following conditions are met:
1. The emission reduction is included as a condition in the permit of the source relied upon to offset the emissions from the new major source or major modification, or in the case of reductions from sources controlled by the applicant, is included as a condition of the permit or permit revision under this Article for the new major source or major modification;
  2. The emission reduction is adopted as a part of this Chapter or comparable rules of any other governmental entity or is contractually enforceable by the Department and is in effect at the time the permit is issued.
- A.** Increased emissions by a major source or major modification subject to R18-2-403 shall be offset by reductions in the emissions of each pollutant for which the area has been designated as nonattainment and for which the source or modification is classified as major. Except as provided in R18-2-405, emissions increases shall be offset by decreases at a ratio of at least 1 to 1.
- B.** Except as provided in subsection (A)(1) or (2), for sources and modifications subject to this Section, the baseline for determining credit for emissions reductions is the emissions limit for the source generating the offset credit under the applicable implementation plan in effect at the time the application for a permit or permit revision is filed.
1. The offset baseline shall be the actual emissions of the source from which offset credit is obtained where either of the following conditions is satisfied:
    - a. The demonstration of reasonable further progress and attainment of ambient air quality standards is based upon the actual emissions of sources located within a designated nonattainment area for which the preconstruction review program was adopted.
    - b. The applicable implementation plan does not contain an emissions limitation for that source or source category.
  2. Where the emissions limit under the applicable implementation plan allows greater emissions than the potential to emit of the source, emissions offset credit will be allowed only for control below this potential.
- C.** For an existing fuel combustion source, emissions offset credit shall be based on the allowable emissions under the appli-



cable implementation plan for the type of fuel being burned at the time the application to construct is filed. If the existing source commits to switch to a cleaner fuel at some future date, emissions offset credit based on the allowable or actual emissions for the fuels involved is not acceptable, unless the permit for the existing source is conditioned to require the use of a specified alternative control measure which would achieve the same degree of emissions reduction should the source switch back to a fuel generating higher emissions. The owner or operator of the existing source must demonstrate that adequate long-term supplies of the new fuel are available before granting emissions offset credit for fuel switches.

**D. Offset Credit for Shutdowns.**

1. Emissions reductions achieved by shutting down an existing emission unit or curtailing production or operating hours may be credited for offsets if they meet both of the following conditions.

a. The reductions are surplus, permanent, quantifiable, and federally enforceable.

b. The shutdown or curtailment occurred after the last day of the base year for the SIP planning process. For purposes of this subsection, the Director may choose to consider a prior shutdown or curtailment to have occurred after the last day of the base year if the projected emissions inventory used to develop the attainment demonstration explicitly includes the emissions from such previously shutdown or curtailed emission units. However, in no event may credit be given for shutdowns that occurred before August 7, 1977.

2. Emissions reductions achieved by shutting down an existing emissions unit or curtailing production or operating hours and that do not meet the requirements in subsection (D)(1)(b) may be credited only if one of the following conditions is satisfied:

a. The shutdown or curtailment occurred on or after the date the construction permit application is filed.

b. The applicant can establish that the proposed new emissions unit is a replacement for the shutdown or curtailed emissions unit, and the emissions reductions achieved by the shutdown or curtailment met the requirements of subsection (D)(1)(a).

**E. No emissions credit may be allowed for replacing one hydrocarbon compound with another of lesser reactivity, except for those compounds listed in Table 1 of EPA's "Recommended Policy on Control of Volatile Organic Compounds," 42 FR 35314, July 8, 1977.**

**F. All emission reductions claimed as offset credits shall be federally enforceable.**

**G. The owner or operator of a major source or major modification subject to this Section must obtain offset credits from the same source or from other sources in the same nonattainment area, except that the Director may allow the owner or operator to obtain offset credits from another nonattainment area if both of the following conditions are satisfied:**

1. The other area has an equal or higher nonattainment classification than the area in which the source is located.

2. Emissions from such other area contribute to a violation of the national ambient air quality standard in the nonattainment area in which the source is located.

**H. Credit for an emissions reduction can be claimed to the extent that the Director has not relied on it in issuing any permit under this Article or the state has not relied on it in a demonstration of attainment or reasonable further progress.**

**I. The total tonnage of increased emissions, in tons per year, resulting from a major modification that must be offset under this Section shall be determined by summing the difference between the allowable emissions after the modification and the actual emissions before the modification for each emissions unit.**

**R18-2-405. Special Rule for Major Sources of VOC or ~~Nitrogen~~ Oxides of ~~Nitrogen~~ in Ozone Nonattainment Areas Classified as Serious or Severe**

**A. Applicability. The provisions of this Section only apply to stationary sources of VOC or ~~nitrogen~~ oxides of ~~nitrogen~~ in ozone nonattainment areas classified as serious or severe. Unless otherwise provided in this Section, all requirements of Articles 3 and 4 of this Chapter apply.**

**B. "Significant" means, for the purposes of a major modification of any major ~~stationary~~ source of VOC or ~~nitrogen~~ oxides of ~~nitrogen~~, or for determining whether an otherwise minor source is major under the definition of "major source" in R18-2-401 ~~R18-2-401(9)(d)~~, any physical change or change in the method of operations that results in net increases in emissions of either pollutant by more than 25 tons when aggregated with all other creditable increases and decreases in emissions from the source over the previous five consecutive calendar years, including the calendar year in which the increase is proposed. For the purposes of this subsection, a physical change or change in the method of operation that results in an increase of less than one ton per year of VOC or oxides of nitrogen before netting does not trigger a five-year aggregation exercise.**

**C. For any major source that emits or has the potential to emit less than 100 tons of VOC or ~~oxides of nitrogen~~ per year, a ~~physical or operational change that results in~~ a significant increase in VOC or ~~oxides of nitrogen~~, respectively, from any discrete operation, unit, or other pollutant emitting activity at the source shall constitute a major modification, except that the increase shall not constitute a major modification, if the owner or operator of the source elects to ~~in emissions from any discrete emissions unit, operation, or other pollutant emitting activity that is offset the increase by a greater reduction in emissions of VOC from other units, operations, units or activities at the source at a~~ an internal offset ratio of at least 1.3 to 1 for the increase in VOC or oxides of nitrogen, respectively, from the unit, operation, or activity shall not be considered part of the major modification. If the owner or operator does not make such an election, the change shall constitute a**

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~~major modification but BACT shall be substituted for LAER when applying R18-2-403(A)(1) to the major modification for all major modifications under this subsection. Net emissions increases in VOC or oxides of nitrogen above the internal offset described herein shall be subject to the offset requirements in subsections (E) and (F).~~

- ~~D. For any stationary source that emits or has the potential to emit 100 tons or more of VOC or oxides of nitrogen per year, a physical or operational change that results in any significant increase in VOC from any discrete operation, unit or other pollutant emitting activity at the source or oxides of nitrogen, respectively, shall constitute a major modification except that if the owner or operator of the source elects to offset the increase by a greater reduction in emissions of VOC from other operations, units or activities within the source at an internal offset ratio of at least 1.3 to 1, R18-2-403(A)(1) shall not apply to the change. If the increase in emissions from the modification at any discrete emissions unit, operation, or other pollutant emitting activity is offset from other units, operations, or activities at the source at a ratio of 1.3 to 1 for the increase in VOC or oxides of nitrogen, respectively, from the unit, operation, or activity, BACT shall be substituted for LAER at the unit, operation, or activity. Net emissions increases in VOC or oxides of nitrogen above the internal offset described herein shall be subject to the offset requirements in subsections (E) and (F).~~
- E. For any new major source or major modification that is classified as major because of emissions or potential to emit VOC or nitrogen oxides ~~of nitrogen~~ in an ozone nonattainment area classified as serious, the increase in emissions of these pollutants from the source or modification shall be offset at a ratio of 1.2 to 1. The offset shall be made in accordance with the provisions of R18-2-404.
- F. For any new major source or major modification that is classified as such because of emissions or potential to emit VOC or nitrogen oxides ~~of nitrogen~~ in an ozone nonattainment area classified as severe, the increase in emissions of these pollutants from the source or modification shall be offset at a ratio of 1.3 to 1. ~~If the SIP requires all existing major sources of these pollutants in the nonattainment area to apply BACT, then the offset ratio shall be 1.2 to 1.~~ These offsets shall be made in accordance with the provisions of R18-2-404.

**R18-2-406. Permit Requirements for Sources Located in Attainment and Unclassifiable Areas**

- A. Except as provided in subsections (B) through (G) below and R18-2-408 (Innovative control technology), no permit or permit revision under this Article shall be issued to a person proposing to construct a new major source or make a major modification to a major source that would be constructed in an area designated as attainment or unclassifiable for any regulated NSR pollutant unless the source or modification meets the following conditions:
  - 1. A new major source shall apply best available control technology (BACT) for each regulated NSR pollutant ~~listed in R18-2-101(104)(a)~~ for which the potential to emit is significant.
  - 2. A major modification shall apply BACT for each regulated NSR pollutant ~~listed in R18-2-101(104)(a)~~ for which the modification project would result in a significant net emissions increase at the source. This requirement applies to each proposed emissions unit at which a net emissions increase in the pollutant would occur as a result of a physical change or change in the method of operation in the unit.
  - 3. For phased construction projects, the determination of BACT shall be reviewed and modified as appropriate at the latest reasonable time which occurs no later than 18 months prior to commencement of construction of each independent phase of the project. At such time the owner or operator of the applicable stationary source may be required to demonstrate the adequacy of any previous determination of ~~best available control technology~~ BACT for the source.
  - 4. BACT shall be determined on a case-by-case basis and may constitute application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment, clean fuels, or innovative fuel combustion techniques, for control of such pollutant. In no event shall such application of BACT result in emissions of any pollutant, which would exceed the emissions allowed by any applicable new source performance standard or national emission standard for hazardous air pollutants under Articles 9 and 11 of this Chapter or by the applicable implementation plan. If the Director determines that technological or economic limitations on the application of measurement methodology to a particular emissions unit would make the imposition of an emissions standard infeasible, a design, equipment, work practice, operational standard, or combination thereof may be prescribed instead to satisfy the requirement for the application of BACT. Such standard shall, to the degree possible, set forth the emissions reduction achievable by implementation of such design, equipment, work practice, or operation and shall provide for compliance by means which achieve equivalent results.
  - 5. The person applying for the permit or permit revision under this Article performs an air impact analysis and monitoring as specified in R18-2-407, and such analysis demonstrates that allowable emission increases from the proposed new major source or major modification, in conjunction with all other applicable emission increases or reductions, including secondary emissions, for all pollutants listed in R18-2-218(A), and including minor and mobile source emissions of nitrogen oxides ~~of nitrogen~~ and PM<sub>10</sub>:
    - a. Would not cause or contribute to concentrations of conventional air pollutants in violation of any ambient air quality standard in Article 2 of this Chapter in any air quality control region or an increase in concentrations of any pollutant by an amount in excess of any applicable maximum allowable increase under R18-2-218 over the baseline concentration in R18-2-218 for any attainment or unclassified area; or
    - b. Would not contribute to an increase in ambient concentrations for a pollutant by an amount in excess of the sig-

nificance level for such pollutant in any adjacent area in which Arizona primary or secondary ambient air quality standards for that pollutant are being violated. A new major source of volatile organic compounds or nitrogen oxides of ~~nitrogen~~, or a major modification to a major source of volatile organic compounds or nitrogen oxides of ~~nitrogen~~ shall be presumed to contribute to violations of the Arizona ambient air quality standards for ozone if it will be located within 50 kilometers of a nonattainment area for ozone. The presumption may be rebutted for a new major source or major modification if it can be satisfactorily demonstrated to the Director that emissions of volatile organic compounds or nitrogen oxides of ~~nitrogen~~ from the new major source or major modification will not contribute to violations of the Arizona ambient air quality standards for ozone in adjacent nonattainment areas for ozone. Such a demonstration shall include a showing that topographical, meteorological, or other physical factors in the vicinity of the new major source or major modification are such that transport of volatile organic compounds emitted from the source are not expected to contribute to violations of the ozone standards in the adjacent nonattainment areas.

6. Air quality models:
  - a. All estimates of ambient concentrations required under this Section shall be based on the applicable air quality models, data basis, and other requirements specified in 40 CFR 51, Appendix W, "Guideline On Air Quality Models," as of July 1, 2004 (and no future amendments or editions), which shall be referred to hereinafter as "Guideline" and is adopted by reference and is on file with the Department.
  - b. Where an air quality impact model specified in the "Guideline" is not applicable, the model may be modified or another model substituted. Such a change shall be subject to notice and opportunity for public comment. Written approval of the EPA Administrator shall be obtained for any modification or substitution.
- B. The requirements of this Section shall not apply to a new major source or major modification to a source with respect to a particular pollutant if the person applying for the permit or permit revision under this Article demonstrates that, as to that pollutant, the source or modification is located in an area designated as nonattainment for the pollutant.
- C. The requirements of this Section shall not apply to a new major source or a major modification of a source if such source or modification would be a major source or major modification only if fugitive emissions, to the extent quantifiable, are considered in calculating the potential emissions of the source or modification, and the source ~~is not either among the Categorical Sources listed in R18-2-101 or belongs to the category of sources for which New Source Performance Standards under 40 CFR 60 or National Emission Standards for Hazardous Air Pollutants under 40 CFR 61 promulgated by the Administrator prior to August 7, 1980~~ does not belong to a section 302(j) category.
- D. The requirements of this Section shall not apply to a new major source or major modification to a source when the owner of such source is a nonprofit health or educational institution.
- E. The requirements of this Section shall not apply to a portable source which would otherwise be a new major source or major modification to an existing source if such portable source is ~~temporary~~ will operate for no more than 12 months, is under a permit or permit revision under this Article, is in compliance with the conditions of that permit or permit revision under this Article, the emissions from the source will not impact a Class I area nor an area where an applicable increment is known to be violated, and reasonable notice is given to the Director prior to the relocation identifying the proposed new location and the probable duration of operation at the new location. Such notice shall be given to the Director not less than 10 calendar days in advance of the proposed relocation unless a different time duration is previously approved by the Director.
- F. Special rules applicable to Federal Land Managers:
  1. Notwithstanding any other provision of this Section, a Federal Land Manager may present to the Director a demonstration that the emissions attributed to such new major source or major modification to a source ~~will~~ would have ~~significant~~ an adverse impact on visibility or other specifically defined air quality related values of any Federal Mandatory area designated in R18-2-217(B) regardless of the fact that the change in air quality resulting from emissions attributable to such new major source or major modification to a source in existence will not cause or contribute to concentrations which exceed the maximum allowable increases for ~~a Class I~~ the area in R18-2-218. If the Director concurs with such demonstrations, the permit or permit revision under this Article shall be denied.
  2. If the owner or operator of a proposed new major source or a source for which major modification is proposed demonstrates to the Federal Land Manager that the emissions attributable to such major source or major modification will have no significant adverse impact on the visibility or other specifically defined air quality-related values of such areas and the Federal Land Manager so certifies to the Director, the Director may issue a permit or permit revision under this Article, notwithstanding the fact that the change in air quality resulting from emissions attributable to such new major source or major modification will cause or contribute to concentrations which exceed the maximum allowable increases for a Class I area. Such a permit or permit revision under this Article shall require that such new major source or major modification comply with such emission limitations as may be necessary to assure that emissions will not cause increases in ambient concentrations greater than the following maximum allowable increases over baseline concentrations for such pollutants:

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|   |     |
|---|-----|
| <u>Maximum Allowable Increase</u><br>(Micrograms per cubic meter) |     |
| <u>Sulfur Oxide</u>   |     |
| <u>Period of exposure</u>   |     |
| <u>Low terrain areas:</u>   |     |
| 24-hour maximum   | 36  |
| 3-hour maximum  | 130 |
| <u>High terrain areas:</u>  |     |
| 24-hour maximum   | 62  |
| 3-hour maximum  | 221 |

| <u>Pollutant</u>              | <u>Maximum allowable increase</u><br>(micrograms per cubic meter) |
|-------------------------------|---|
| <u>PM<sub>2.5</sub>:</u>      |   |
| <u>Annual arithmetic mean</u> | 4   |
| <u>24-hr maximum</u>          | 9   |
| <u>PM<sub>10</sub>:</u>       |   |
| <u>Annual arithmetic mean</u> | 17  |
| <u>24-hr maximum</u>          | 30  |
| <u>Sulfur dioxide:</u>        |   |
| <u>Annual arithmetic mean</u> | 20  |
| <u>24-hr maximum</u>          | 91  |
| <u>3-hr maximum</u>           | 325   |
| <u>Nitrogen dioxide</u>       |   |
| <u>Annual arithmetic mean</u> | 25  |

- G. The issuance of a permit or permit revision under this Article in accordance with this Section shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the SIP and any other requirements under local, state, or federal law.
- H. At such time that a particular source or modification becomes a major source or major modification solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of this Section shall apply to the source or modification as though construction had not yet commenced on the source or modification.

**R18-2-407. Air Quality Impact Analysis and Monitoring Requirements**

- A. Any application for a permit or permit revision under this Article to construct a new major source or major modification to a major source shall contain an analysis of ambient air quality in the area that the new major source or major modification would affect for each of the following pollutants:
  1. For the new source, each pollutant that it would have the potential to emit in a significant amount;
  2. For the modification, each pollutant for which it would result in a significant net emissions increase.
- B. With respect to any such pollutant for which no Arizona ambient air quality standard exists, the analysis shall contain all air quality monitoring data as the Director determines is necessary to assess ambient air quality for that pollutant in any area that the emissions of the pollutant would affect.
- C. With respect to any such pollutant (other than nonmethane hydrocarbons) for which such a standard does exist, the analysis shall contain continuous air quality monitoring data gathered for purposes of determining whether emissions of that pollutant would cause or contribute to a violation of the standard or any maximum allowable increase.
- D. In general, the continuous air quality monitoring data that is required shall have been gathered over a period of at least one year and shall represent at least the year preceding receipt of the application, except that, if the Director determines that a complete and adequate analysis can be accomplished with monitoring data gathered over a period shorter than one year (but not to be less than four months), the data that is required shall have been gathered over at least that shorter period.
- E. The owner or operator of a proposed stationary source or modification to a source of volatile organic compounds who satisfies all conditions of 40 CFR 51, Appendix S, Section IV, may provide post-approval monitoring data for ozone in lieu

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of providing preconstruction data as required under subsections (B), (C), and (D) above.

- F. Post-construction monitoring. The owner or operator of a new major source or major modification shall, after construction of the source or modification, conduct such ambient monitoring as the Director determines is necessary to determine the effect emissions from the new source or modification may have, or are having, on air quality in any area.
- G. Operations of monitoring stations. The owner or operator of a new major source or major modification shall meet the requirements of 40 CFR 58, Appendix B, during the operation of monitoring stations for purposes of satisfying subsections (B) through (F) above.
- H. The requirements of subsections (B) through (G) above shall not apply to a new major source or major modification to an existing source with respect to monitoring for a particular pollutant if:
  - 1. The emissions increase of the pollutant from the new source or the net emissions increase of the pollutant from the modification would cause, in any area, air quality impacts less than the following amounts:
    - a. Carbon Monoxide - 575  $\mu\text{g}/\text{m}^3$ , eight-hour average;
    - b. Nitrogen dioxide - 14  $\mu\text{g}/\text{m}^3$ , annual average;
    - c.  $\text{PM}_{2.5}$  - 4  $\mu\text{g}/\text{m}^3$ , 24-hour average;
    - d.  $\text{PM}_{10}$  - 10  $\mu\text{g}/\text{m}^3$ , 24-hour average;
    - e. Sulfur dioxide - 13  $\mu\text{g}/\text{m}^3$ , 24-hour average;
    - f. Lead - 0.1  $\mu\text{g}/\text{m}^3$ , 24-hour average;
    - g. Fluorides - 0.25  $\mu\text{g}/\text{m}^3$ , 24-hour average;
    - h. Total reduced sulfur - 10  $\mu\text{g}/\text{m}^3$ , one-hour average;
    - i. Hydrogen sulfide - 0.04  $\mu\text{g}/\text{m}^3$ , one-hour average;
    - j. Reduced sulfur compounds - 10  $\mu\text{g}/\text{m}^3$ , one-hour average;
    - k. Ozone - increased emissions of less than 100 tons per year of volatile organic compounds or oxides of nitrogen; or;
  - 2. The concentrations of the pollutant in the area that the new source or modification would affect are less than the concentrations listed in subsection (H)(1) above.
- I. Any application for permit or permit revision under this Article to construct a new major source or major modification to a source shall contain:
  - 1. An analysis of the impairment to visibility, soils, and vegetation that would occur as a result of the new source or modification and general commercial, residential, industrial, and other growth associated with the new source or modification. The applicant need not provide an analysis of the impact on vegetation having no significant commercial or recreational value.
  - 2. An analysis of the air quality impact projected for the area as a result of general commercial, residential, industrial, and other growth associated with the new source or modification.

**R18-2-411. ~~Special Rule for Non-operating Sources of Sulfur Dioxide in Sulfur Dioxide Nonattainment Areas Repealed~~**

- ~~A. If an emissions unit that is a major source of sulfur dioxide located in a sulfur dioxide nonattainment area has not operated for more than 24 consecutive calendar months, it may only be restarted if the owner or operator of such source does all of the following:
 
  - 1. ~~Demonstrates, according to the air quality impact analysis requirements of R18-2-406(A)(5) and (6) that emissions from that unit, including fugitive emissions, will not cause or contribute to a violation of the ambient standard for sulfur dioxide in R18-2-202;~~
  - 2. ~~Demonstrates that startup of that unit will not require reconstruction; and~~
  - 3. ~~Submits a startup plan that includes a source testing plan.~~~~
- ~~B. The demonstrations and plan shall be submitted to the Director at least 180 days prior to the expected day when the restarting of the non-operating unit will commence. The Director may request additional information, as necessary, to evaluate the submittals. The unit shall not be restarted unless the Director approves the submittal.~~
- ~~C. If the Director disapproves a demonstration or plan required in subsection (A), or such demonstration or plan, including additional information requested by the Director, is not submitted in a timely manner, the source shall be required to obtain a permit pursuant to the requirements for a new major source or major modification as contained in this Article.~~
- ~~D. The conduct of performance tests that comply with the requirements of R18-2-312 and demonstrate compliance with emission limits prescribed in a permit for that source or an applicable rule shall constitute operation of an emissions unit for the purposes of this Section.~~

**R18-2-412. PALs**

**A. Applicability.**

- 1. The Director may approve the use of a PAL for any existing major source if the PAL meets the requirements of this Section.
- 2. Any physical change in or change in the method of operation of a major stationary source that maintains its total

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source-wide emissions below the PAL level, meets the requirements of this Section, and complies with the PAL permit:

- a. Is not a major modification for the PAL pollutant.
  - b. Does not have to be approved through the PSD program, and
  - c. Is not subject to the provisions in R18-2-403(C) or R18-2-406(H).
3. Except as provided under subsection (A)(2)(c), a major stationary source shall continue to comply with all applicable federal or state requirements, emission limitations, and work practice requirements that were established prior to the effective date of the PAL.

**B.** Permit application requirements. As part of a permit application requesting a PAL, the owner or operator of a major source shall submit the following information to the Director for approval:

1. A list of all emissions units at the source designated as small, significant or major based on their potential to emit. In addition, the owner or operator of the source shall indicate which, if any, federal or state applicable requirements, emission limitations, or work practices apply to each unit.
2. Calculations of the baseline actual emissions (with supporting documentation).
3. The calculation procedures that the major source owner or operator proposes to use to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total for each month as required by subsection (L)(1).

**C.** General requirements for establishing PALs.

1. The Director is allowed to establish a PAL at a major source, provided that at a minimum, the following requirements are met:
  - a. The PAL shall impose an annual emission limitation in tons per year, that is enforceable as a practical matter, for the entire major source. For each month during the PAL effective period after the first 12 months of establishing a PAL, the major source owner or operator shall show that the sum of the monthly emissions from each emissions unit under the PAL for the previous 12 consecutive months is less than the PAL (a 12-month sum, rolled monthly). For each month during the first 11 months from the PAL effective date, the major source owner or operator shall show that the sum of the preceding monthly emissions from the PAL effective date for each emissions unit under the PAL is less than the PAL.
  - b. The PAL shall be established in a PAL permit that meets the requirements in subsection (D).
  - c. The PAL permit shall contain all the requirements of subsection (F).
  - d. The PAL shall include fugitive emissions, to the extent quantifiable, from all emissions units that emit or have the potential to emit the PAL pollutant at the major source.
  - e. Each PAL shall regulate emissions of only one pollutant.
  - f. Each PAL shall have a PAL effective period of 10 years.
  - g. The owner or operator of the major source with a PAL shall comply with the monitoring, recordkeeping, and reporting requirements provided in subsections (K) through (M) for each emissions unit under the PAL through the PAL effective period.
2. At no time (during or after the PAL effective period) are emissions reductions of a PAL pollutant that occur during the PAL effective period creditable as decreases for purposes of offsets under R18-2-404 unless the level of the PAL is reduced by the amount of such emissions reductions and such reductions would be creditable in the absence of the PAL.

**D.** Action on PAL permit application. A PAL permit application shall be processed in accordance with one of the following:

1. As an initial Class I permit pursuant to R18-2-304.
2. As a renewal of a Class I permit pursuant to R18-2-322.
3. As a significant revision to a Class I permit pursuant to R18-2-320.

**E.** Setting the 10-year actuals PAL level.

1. Except as provided in subsection (E)(2), the PAL level for a major source shall be established as the sum of the baseline actual emissions of the PAL pollutant for each emissions unit at the source; plus an amount equal to the applicable significant level for the PAL pollutant. When establishing the PAL level, only one consecutive 24-month period must be used to determine the baseline actual emissions for all existing emissions units. Emissions associated with units that were permanently shut down after this 24-month period must be subtracted from the PAL level. The Director shall specify a reduced PAL level(s) (in tons/yr) in the PAL permit to become effective on the future compliance date(s) of any applicable federal or state regulatory requirement(s) that the Director is aware of prior to issuance of the PAL permit. For instance, if the source owner or operator will be required to reduce emissions from industrial boilers in half from baseline emissions of 60 ppm NOX to a new rule limit of 30 ppm, then the permit shall contain a future effective PAL level that is equal to the current PAL level reduced by half of the original baseline emissions of such unit(s).
2. For newly constructed units (which do not include modifications to existing units) on which actual construction began after the 24-month period, in lieu of adding the baseline actual emissions as specified in subsection (F)(1), the emissions must be added to the PAL level in an amount equal to the potential to emit of the units.

- E.** Contents of the PAL permit. The PAL permit must contain, at a minimum, the following information:
1. The PAL pollutant and the applicable source-wide emission limitation in tons per year.
  2. The PAL permit effective date and the expiration date of the PAL (PAL effective period).
  3. Specification in the PAL permit that if a major source owner or operator applies to renew a PAL in accordance with subsection (I) before the end of the PAL effective period, then the PAL shall not expire at the end of the PAL effective period. It shall remain in effect until a revised PAL permit is issued by the Director.
  4. A requirement that emission calculations for compliance purposes must include emissions from startups, shutdowns, and malfunctions.
  5. A requirement that, once the PAL expires, the major source is subject to the requirements of subsection (H).
  6. The calculation procedures that the major source owner or operator shall use to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total as required by subsection (L)(1).
  7. A requirement that the major source owner or operator monitor all emissions units in accordance with the provisions under subsection (K).
  8. A requirement to retain the records required under subsection (L) onsite. Such records may be retained in an electronic format.
  9. A requirement to submit the reports required under subsection (M) by the required deadlines.
  10. Any other requirements that the Director deems necessary to implement and enforce the PAL.
- G.** PAL effective period and reopening of the PAL permit.
1. PAL effective period. The Director shall specify a PAL effective period of 10 years.
  2. Reopening of the PAL permit.
    - a. During the PAL effective period, the Director must reopen the PAL permit to:
      - i. Correct typographical/calculation errors made in setting the PAL or reflect a more accurate determination of emissions used to establish the PAL;
      - ii. Reduce the PAL if the owner or operator of the major source creates creditable emissions reductions for use as offsets under R18-2-404; and
      - iii. Revise the PAL to reflect an increase in the PAL as provided under subsection (L).
    - b. The Director shall have discretion to reopen the PAL permit for the following:
      - i. Reduce the PAL to reflect new federal applicable requirements with compliance dates after the PAL effective date;
      - ii. Reduce the PAL consistent with any other requirement, that is enforceable as a practical matter, and that the state may impose on the major source under the State Implementation Plan; and
      - iii. Reduce the PAL if the Director determines that a reduction is necessary to avoid causing or contributing to a NAAQS or PSD increment violation, or to an adverse impact on an air quality related value that has been identified for a Federal Class I area by a Federal Land Manager and for which information is available to the general public.
    - c. Except for the permit reopening in subsection (G)(2)(a)(i) for the correction of typographical/calculation errors that do not increase the PAL level, all other reopenings shall be carried out in accordance with the public participation requirements of subsection (D).
- H.** Expiration of a PAL. Any PAL that is not renewed in accordance with the procedures in subsection (I) shall expire at the end of the PAL effective period, and the following requirements shall apply.
1. Each emissions unit (or each group of emissions units) that existed under the PAL shall comply with an allowable emission limitation under a revised permit established according to the following procedures.
    - a. Within the time-frame specified for PAL renewals in subsection (I)(2), the major source shall submit a proposed allowable emission limitation for each emissions unit (or each group of emissions units, if such a distribution is more appropriate) by distributing the PAL allowable emissions for the major source among each of the emissions units that existed under the PAL. If the PAL had not yet been adjusted for an applicable requirement that became effective during the PAL effective period, as would be required under subsection (I)(5), such distribution shall be made as if the PAL had been adjusted.
    - b. The Director shall decide how the PAL allowable emissions will be distributed and issue a revised permit incorporating allowable limits for each emissions unit, or each group of emissions units, as the Director determines is appropriate.
  2. Each emissions unit(s) shall comply with the allowable emission limitation on a 12-month rolling basis. The Director may approve the use of monitoring systems (source testing, emission factors, etc.) other than CEMS, CERMS, PEMS, or CPMS to demonstrate compliance with the allowable emission limitation.
  3. Until the Director issues the revised permit incorporating allowable limits for each emissions unit, or each group of emissions units, as required under subsection (H)(1)(b), the source shall continue to comply with a source-wide, multi-unit emissions cap equivalent to the level of the PAL emission limitation.
  4. Any physical change or change in the method of operation at the major source will be subject to the applicability criteria set forth at subsection (C).

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5. The major source owner or operator shall continue to comply with any applicable requirements that may have applied during the PAL effective period. Emission limitations that were eliminated by the PAL in accordance with subsection (A)(2)(c) shall not be reinstated.

**I.** Renewal of a PAL.

1. The Director shall follow the procedures specified in subsection (F) in approving any request to renew a PAL for a major source, and shall provide both the proposed PAL level and a written rationale for the proposed PAL level to the public for review and comment. During such public review, any person may propose a PAL level for the source for consideration by the Director.
2. Application deadline. A major source owner or operator shall submit a timely application to the Director to request renewal of a PAL. A timely application is one that is submitted at least six months prior to, but not earlier than 18 months from, the date of permit expiration. This deadline for application submittal is to ensure that the permit will not expire before the permit is renewed. If the owner or operator of a major source submits a complete application to renew the PAL within this time period, then the PAL shall continue to be effective until the revised permit with the renewed PAL is issued.
3. Application requirements. The application to renew a PAL permit shall contain the following information.
  - a. The information required in subsections (B)(1) through (3).
  - b. A proposed PAL level.
  - c. The sum of the potential to emit of all emissions units under the PAL (with supporting documentation).
  - d. Any other information the owner or operator wishes the Director to consider in determining the appropriate level for renewing the PAL.
4. PAL adjustment. In determining whether and how to adjust the PAL, the Director shall consider the options outlined in subsections (I)(4)(a) and (b). However, in no case may any such adjustment fail to comply with subsection (I)(4)(c).
  - a. If the emissions level calculated in accordance with subsection (F) is equal to or greater than 80% of the PAL level, the Director may renew the PAL at the same level without considering the factors set forth in subsection (I)(4)(b); or
  - b. The Director may set the PAL at a level that the Director determines to be more representative of the source's baseline actual emissions, or that the Director determines to be more appropriate considering air quality needs, advances in control technology, anticipated economic growth in the area, desire to reward or encourage the source's voluntary emissions reductions, or other factors as specifically identified by the Director in the Director's written rationale.
  - c. Notwithstanding subsections (I)(4)(a) and (b):
    - i. If the potential to emit of the major source is less than the PAL, the Director shall adjust the PAL to a level no greater than the potential to emit of the source; and
    - ii. The Director shall not approve a renewed PAL level higher than the current PAL, unless the PAL has been increased in accordance with subsection (J).
5. If the compliance date for an applicable requirement that applies to the PAL source occurs during the PAL effective period, and if the Director has not already adjusted for such requirement, the PAL shall be adjusted at the time of PAL permit renewal or Title V permit renewal, whichever occurs first.

**J.** Increasing a PAL during the PAL effective period.

1. The Director may increase a PAL emission limitation only if the following requirements are met:
  - a. The owner or operator of the major source shall submit a complete application to request an increase in the PAL limit for a PAL major modification. Such application shall identify the emissions unit(s) contributing to the increase in emissions so as to cause the major source's emissions to equal or exceed its PAL.
  - b. As part of this application, the major source owner or operator shall demonstrate that the sum of the baseline actual emissions of the small emissions units, plus the sum of the baseline actual emissions of the significant and major emissions units assuming application of BACT or LAER equivalent controls, plus the sum of the PAL allowable emissions of the new or modified emissions unit(s) exceeds the PAL. The level of control that would result from BACT or LAER equivalent controls on each significant or major emissions unit shall be determined by conducting a new BACT or LAER analysis at the time the application is submitted, as applicable for the particular PAL pollutant, unless the emissions unit is currently required to comply with a BACT or LAER requirement that was established within the preceding 10 years. In such a case, the assumed control level for that emissions unit shall be equal to the level of BACT or LAER with which that emissions unit must currently comply.
  - c. The owner or operator obtains a major NSR permit for all emissions unit(s) identified in subsection (J)(1)(a), regardless of the magnitude of the emissions increase resulting from them (that is, no significant levels apply). These emissions unit(s) shall comply with any emissions requirements resulting from the major NSR process (for example, BACT), even though they have also become subject to the PAL or continue to be subject to the PAL.



- d. The PAL permit shall require that the increased PAL level shall be effective on the day any emissions unit that is part of the PAL major modification becomes operational and begins to emit the PAL pollutant.
  2. The Director shall calculate the new PAL level as the sum of the PAL allowable emissions for each modified or new emissions unit, plus the sum of the baseline actual emissions of the significant and major emissions units (assuming application of BACT or LAER equivalent controls as determined in accordance with subsection (J)(1)(b), plus the sum of the baseline actual emissions of the small emissions units.
  3. The PAL permit shall be revised to reflect the increased PAL level pursuant to the public notice requirements of subsection (D).
- K. Monitoring requirements for PALs.**
1. General requirements.
    - a. Each PAL permit must contain enforceable requirements for the monitoring system that accurately determines plantwide emissions of the PAL pollutant in terms of mass per unit of time. Any monitoring system authorized for use in the PAL permit must be based on sound science and meet generally acceptable scientific procedures for data quality and manipulation. Additionally, the information generated by such system must meet minimum legal requirements for admissibility in a judicial proceeding to enforce the PAL permit.
    - b. The PAL monitoring system must employ one or more of the four general monitoring approaches meeting the minimum requirements set forth in subsections (J)(2)(a) through (K)(2)(d) and must be approved by the Director.
    - c. Notwithstanding subsection (J)(1)(b), the owner or operator may also employ an alternative monitoring approach if approved by the Director as meeting the requirements of subsection (J)(1)(a).
    - d. Failure to use a monitoring system that meets the requirements of this Section renders the PAL invalid.
  2. Minimum performance requirements for approved monitoring approaches. The following are acceptable general monitoring approaches when conducted in accordance with the minimum requirements in subsections (J)(3) through (9):
    - a. Mass balance calculations for activities using coatings or solvents.
    - b. CEMS.
    - c. CPMS or PEMS, and
    - d. Emission factors.
  3. Mass balance calculations. An owner or operator using mass balance calculations to monitor PAL pollutant emissions from activities using coating or solvents shall meet the following requirements:
    - a. Provide a demonstrated means of validating the published content of the PAL pollutant that is contained in or created by all materials used in or at the emissions unit;
    - b. Assume that the emissions unit emits all of the PAL pollutant that is contained in or created by any raw material or fuel used in or at the emissions unit, if it cannot otherwise be accounted for in the process; and
    - c. Where the vendor of a material or fuel, which is used in or at the emissions unit, publishes a range of pollutant content from such material, the owner or operator must use the highest value of the range to calculate the PAL pollutant emissions unless the Director determines there is site-specific data or a site-specific monitoring program to support another content within the range.
  4. CEMS. An owner or operator using CEMS to monitor PAL pollutant emissions shall meet the following requirements:
    - a. CEMS must comply with applicable Performance Specifications found in 40 CFR 60, Appendix B; and
    - b. CEMS must sample, analyze and record data at least every 15 minutes while the emissions unit is operating.
  5. CPMS or PEMS. An owner or operator using CPMS or PEMS to monitor PAL pollutant emissions shall meet the following requirements:
    - a. The CPMS or the PEMS must be based on current site-specific data demonstrating a correlation between the monitored parameter(s) and the PAL pollutant emissions across the range of operation of the emissions unit; and
    - b. Each CPMS or PEMS must sample, analyze, and record data at least every 15 minutes, or at another less frequent interval approved by the Director, while the emissions unit is operating.
  6. Emission factors. An owner or operator using emission factors to monitor PAL pollutant emissions shall meet the following requirements:
    - a. All emission factors shall be adjusted, if appropriate, to account for the degree of uncertainty or limitations in the factors' development;
    - b. The emissions unit shall operate within the designated range of use for the emission factor, if applicable; and
    - c. If technically practicable, the owner or operator of a significant emissions unit that relies on an emission factor to calculate PAL pollutant emissions shall conduct validation testing to determine a site-specific emission factor within six months of PAL permit issuance, unless the Director determines that testing is not required.
  7. A source owner or operator must record and report maximum potential emissions without considering enforceable emission limitations or operational restrictions for an emissions unit during any period of time that there is no monitoring data, unless another method for determining emissions during such periods is specified in the PAL permit.
  8. Notwithstanding the requirements in subsections (K)(3) through (7), where an owner or operator of an emissions unit

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cannot demonstrate a correlation between the monitored parameter(s) and the PAL pollutant emissions rate at all operating points of the emissions unit, the Director shall, at the time of permit issuance:

- a. Establish default value(s) for determining compliance with the PAL based on the highest potential emissions reasonably estimated at such operating point(s); or
- b. Determine that operation of the emissions unit during operating conditions when there is no correlation between monitored parameter(s) and the PAL pollutant emissions is a violation of the PAL.

9. Re-validation. All data used to establish the PAL pollutant must be re-validated through performance testing or other scientifically valid means approved by the Director. Such testing must occur at least once every five years after issuance of the PAL.

**L. Recordkeeping requirements.**

1. The PAL permit shall require an owner or operator to retain a copy of all records necessary to determine compliance with any requirement of this Section and with the PAL, including a determination of each emissions unit's 12-month rolling total emissions, for five years from the date of such record.
2. The PAL permit shall require an owner or operator to retain a copy of the following records for the duration of the PAL effective period plus five years:
  - a. A copy of the PAL permit application and any applications for revisions to the PAL, and
  - b. Each annual certification of compliance pursuant to R18-2-309(2) and the data relied on in certifying compliance.

**M. Reporting and notification requirements. The owner or operator shall submit semi-annual monitoring reports and prompt deviation reports to the Director in accordance with R18-2-306(A)(5). The reports shall meet the following requirements:**

1. Semi-annual report. The semi-annual report shall be submitted to the Director within 30 days of the end of each reporting period. This report shall contain the following information:
  - a. The identification of owner and operator and the permit number.
  - b. Total annual emissions (tons/year) based on a 12-month rolling total for each month in the reporting period recorded pursuant to subsection (L)(1).
  - c. All data relied upon, including, but not limited to, any Quality Assurance or Quality Control data, in calculating the monthly and annual PAL pollutant emissions.
  - d. A list of any emissions units modified or added to the major source during the preceding six-month period.
  - e. The number, duration, and cause of any deviations or monitoring malfunctions (other than the time associated with zero and span calibration checks), and any corrective action taken.
  - f. A notification of a shutdown of any monitoring system, whether the shutdown was permanent or temporary, the reason for the shutdown, the anticipated date that the monitoring system will be fully operational or replaced with another monitoring system, and whether the emissions unit monitored by the monitoring system continued to operate, and the calculation of the emissions of the pollutant or the number determined by method included in the permit, as provided by subsection (L)(7).
  - g. A certification by the responsible official consistent with R18-2-304(H).
2. Deviation report. The major source owner or operator shall promptly submit reports of any deviations or exceedance of the PAL permit requirements, including periods where no monitoring is available, in accordance with R18-2-306(A)(5). The reports shall contain the following information:
  - a. The identification of owner and operator and the permit number.
  - b. The PAL permit requirement that experienced the deviation or that was exceeded.
  - c. Emissions resulting from the deviation or the exceedance, and
  - d. A certification by the responsible official consistent with R18-2-304(H).
3. Re-validation results. The owner or operator shall submit to the Director the results of any re-validation test or method within three months after completion of such test or method.

**ARTICLE 5. GENERAL PERMITS**

**R18-2-502. General Permit Development**

- A. The Director may issue a general permit on the Director's own initiative or in response to a petition.
- B. Any person may submit a petition to the Director requesting the issuance of a general permit for a defined class of facilities. The petition shall propose a particular class of facilities, and list the approximate number of facilities in the proposed class along with their size, processes, and operating conditions, and demonstrate how the class meets the criteria for a general permit as specified in R18-2-501 and A.R.S. § 49-426(H). The Director shall provide a written response to the petition within 120 days of receipt.
- C. General permits shall be issued ~~or denied~~ for classes of facilities using the same engineering principles that applies to permits for individual sources and following the public notice requirements of R18-2-504.
- D. General permits shall include all of the following:
  1. All elements contained in R18-2-306(A) except ~~(2)(b)~~ R18-2-306(A)(2)(b) and (6).

2. The process for individual sources to apply for coverage under the general permit.

- E. General permits developed by the Director shall require sources that are covered under the general permit to install and operate reasonably available control technology for any regulated minor NSR pollutants allowed under the general permit at an amount equal to or greater than the permitting exemption threshold. This requirement shall not apply to any pollutants subject to an emissions standard established or revised by the Administrator under section 111 or 112 of the Act after November 15, 1990.

**R18-2-503. Application for Coverage under General Permit**

- A. Once the Director has issued a general permit, any source which is a member of the class of facilities covered by the general permit may apply to the Director for authority to operate under the general permit. At the time the Director issues a general permit, the Director may also establish a specific application form with filing instructions for sources in the category covered by the general permit. Applicants shall complete the specific application form or, if none has been adopted, the standard application form contained in Appendix 1 to this Chapter. The specific application form shall, at a minimum, require the applicant to submit the following information:
1. Information identifying and describing the source, its processes, and operating conditions in sufficient detail to allow the Director to determine qualification for, and to assure compliance with, the general permit.
  2. A compliance plan that meets the requirements of R18-2-309.
- B. For sources required to obtain a permit under Title V of the Act, the Director shall provide the Administrator with a permit application summary form and any relevant portion of the permit application and compliance plan. To the extent possible, this information shall be provided in computer-readable format compatible with the Administrator's national database management system.
- C. The Director shall act on the application for coverage under ~~the~~ a general permit as expeditiously as possible, ~~but a final decision shall be reached within 180 days.~~ The source may operate under the terms of ~~its application~~ the applicable general permit during that time. ~~If the application for coverage is denied, the Director shall notify the source that it shall apply for an individual permit within 180 days of receipt of notice.~~ The Director may defer acting on an application under this subsection (if) the Director has provided notice of intent to renew or not renew the permit.
- D. The Director shall deny an application for coverage from any Class I source that is subject to case-by-case standards or requirements.

**R18-2-505. General Permit Renewal**

- A. The Director shall review and may renew general permits every five years. A source's authorization to operate under a general permit shall coincide with the term of the general permit regardless of when the authorization began during the five-year period, except as provided in R18-2-510(C). In addition to the public notice required to issue a proposed permit under R18-2-504, the Director shall notify in writing all sources who have been granted, or who have applications pending for, authorization to operate under the permit. The written notice shall describe the source's duty to reapply and may include requests for information required under the proposed permit.
- B. At the time a general permit is renewed, the Director shall notify in writing all sources who were granted coverage under the previous permit and shall require them to submit a timely renewal application. For purposes of general permits, a timely application is one that is submitted within the time-frame specified by the Director in the written notification. Until such time that a timely application is submitted, the source shall continue to comply with the previously issued general permit coverage. Upon submittal of a timely application, the source shall comply with the renewed permit. Failure to submit a timely application terminates the source's right to operate.

**R18-2-512. Changes to Facilities Granted Coverage under General Permits**

- A. This Section applies to changes made at a facility that has been granted coverage under a general permit.
- B. Facility Changes that Require New Authorization to Operate. The following changes at a source that has been granted coverage under a general permit shall be made only after the source requests new authorization to operate from the Director:
1. Adding new emissions units that require new authorization to operate.
  2. Installing replacement emissions units that require authorization to operate.
- C. Facility Changes that Do Not Require Authorization to Operate. The following changes at a source that has been granted coverage under a general permit shall be made only after the source provides written notification to the Department:
1. Adding new emissions units that do not require authorization to operate.
  2. Installing a replacement emissions unit with a higher capacity that does not require authorization to operate.
  3. Adding or replacing air pollution control equipment.
- D. A source that has been granted coverage under a general permit shall keep a record of any physical change or change in the method of operation that could affect emissions. The record shall include a description of the change and the date the change occurred.
- E. For sources that submit a request or notification under subsection (B) or (C), the applicant shall provide information identifying and describing the source, its processes, and operating conditions in sufficient detail to allow the Director to deter-

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mine continued qualification for, and to assure compliance with, the general permit. The Director shall act on a request for new authority to operate under a general permit as expeditiously as possible. The source may operate under the terms of the applicable general permit during that time.

**R18-2-513. Portable Sources Covered under a General Permit**

- A.** This Section applies to sources that have been granted coverage under a general permit that allows for the operation of a source at more than one location.
- B.** General permits developed by the Director for portable sources shall contain conditions that will assure compliance with all applicable requirements at all authorized locations.
- C.** Owners and operators that hold multiple coverages under the same general permit may interchange equipment between sources without obtaining new authorization to operate. At no time shall an owner or operator interchange equipment that would cause the combined facility to exceed emission limitations in the general permit. Equipment covered under different general permits shall not be interchanged except that a new authorization to operate is obtained in accordance with this Article.
- D.** Owners and operators that operate multiple portable sources under a general permit shall have an equivalent number of coverages under a general permit as the number of locations at which each portable source operates.
- E.** A portable source that will operate for the duration of its permit solely in one county that has established a local air pollution control program pursuant to A.R.S. § 49-479 shall obtain a permit from that county. A portable source with a county permit shall not operate in any other county. A portable source that has been granted coverage under a general permit that subsequently obtains a county permit shall request that the Director terminate the coverage under the general permit. Upon issuance of the county permit, the coverage under the general permit issued by the Director is no longer valid.
- F.** A portable source which has a county permit but proposes to operate outside that county may obtain coverage under a general permit from the Director. A portable source that has a permit issued by a county and obtains coverage under a general permit issued by the Director shall request that the county terminate the permit. Upon issuance of coverage under a general permit by the Director, the county permit is no longer valid. Before commencing operation in the new county, the source shall notify the Director and the control officer who has jurisdiction in the county that includes the new location according to subsection (G).
- G.** A portable source granted coverage under a general permit may be transferred from one location to another provided that the owner or operator of such equipment notifies the Director and any control officer who has jurisdiction over the geographic area that includes the new location of the transfer prior to the transfer. The notification required under this subsection (shall) include:
  - 1. A description of the equipment to be transferred including the permit number and as appropriate the Authorization-to-Operate number for each piece of equipment;
  - 2. A description of the present location;
  - 3. A description of the location to which the equipment is to be transferred, including the availability of all utilities, such as water and electricity, necessary for the proper operation of all control equipment;
  - 4. The date on which the equipment is to be moved;
  - 5. The date on which operation of the equipment will begin at the new location;
  - 6. A complete equipment list of all equipment that will be located at the new location; and
  - 7. Revised emissions calculations demonstrating that the equipment at the new location continues to qualify for the general permit under which the source has coverage.

**ARTICLE 6. EMISSIONS FROM EXISTING AND NEW NONPOINT SOURCES**

**R18-2-614. Evaluation of Nonpoint Source Emissions**

Opacity of an emission from any nonpoint source shall not be greater than 40% measured according to the Arizona Testing Manual 40 CFR 60, Appendix A, Reference Method 9. An open fire permitted under R18-2-602 or regulated under Article 15 is exempt from this requirement.

**ARTICLE 7. EXISTING STATIONARY SOURCE PERFORMANCE STANDARDS**

**R18-2-701. Definitions**

For purposes of this Article:

- 1. "Acid mist" means sulfuric acid mist as measured in the Arizona Testing Manual and 40 CFR 60, Appendix A.
- 2. "Architectural coating" means a coating used commercially or industrially for residential, commercial or industrial buildings and their appurtenances, structural steel, and other fabrications such as storage tanks, bridges, beams and girders.
- 3. "Asphalt concrete plant" means any facility used to manufacture asphalt concrete by heating and drying aggregate and mixing with asphalt cements. This is limited to facilities, including drum dryer plants that introduce asphalt into the dryer, which employ two or more of the following processes:
  - a. A dryer.

- b. Systems for screening, handling, storing, and weighing hot aggregate.
- c. Systems for loading, transferring, and storing mineral filler.
- d. Systems for mixing asphalt concrete.
- e. The loading, transferring, and storage systems associated with emission control systems.
4. "Black liquor" means waste liquor from the brown stock washer and spent cooking liquor which have been concentrated in the multiple-effect evaporator system.
5. "Boiler" means an enclosed fossil- or other fuel-fired combustion device used to produce heat and to transfer heat to recirculating water, steam, or other medium.
6. "Bottoming-cycle cogeneration unit" means a cogeneration unit in which the energy input to the unit is first used to produce useful thermal energy and at least some of the reject heat from the useful thermal energy application or process is then used for electricity production.
7. "Calcine" means the solid materials produced by a lime plant.
8. "Coal" means any solid fuel classified as anthracite, bituminous, subbituminous, or lignite by the ASTM Standard Specification for Classification of Coals by Rank D388-77, 90, 91, 95, or 98a.
9. "Coal-derived fuel" means any fuel (whether in a solid, liquid, or gaseous state) produced by the mechanical, thermal or chemical processing of coal.
10. "Coal-fired" means combusting any amount of coal or coal-derived fuel, alone or in combination with any amount of any other fuel, during any year.
11. "Cogeneration unit" means a stationary coal-fired boiler or stationary coal-fired combustion turbine:
  - a. Having equipment used to produce electricity and useful thermal energy for industrial, commercial, heating, or cooling purposes through the sequential use of energy; and
  - b. Producing during the 12-month period starting on the date the unit first produces electricity and during any calendar year after which the unit first produces electricity:
    - i. For a topping-cycle cogeneration unit: useful thermal energy not less than ~~five percent~~ 5% of total energy output; and useful power that, when added to one-half of useful thermal energy produced, is not less than ~~42.5 percent~~ 42.5% of total energy input, if useful thermal energy produced is ~~15 percent~~ 15% or more of total energy output, or not less than ~~45 percent~~ 45% of total energy input, if useful thermal energy produced is less than ~~15 percent~~ 15% of total energy output; and
    - ii. For a bottoming-cycle cogeneration unit, useful power not less than ~~45 percent~~ 45% of total energy input.
12. "Combustion turbine" means:
  - a. An enclosed device comprising a compressor, a combustor, and a turbine and in which the flue gas resulting from the combustion of fuel in the combustor passes through the turbine, rotating the turbine; and
  - b. If the enclosed device under subsection ~~(a)~~ (12)(a) is combined cycle, any associated heat recovery steam generator and steam turbine.
13. "Commercial operation" means the time when the owner or operator supplies electricity for sale or use, including test generation.
14. "Concentrate" means enriched copper ore recovered from the froth flotation process.
15. "Concentrate dryer" means any facility in which a copper sulfide ore concentrate charge is heated in the presence of air to eliminate a portion of the moisture from the charge, provided less than ~~five percent~~ 5% of the sulfur contained in the charge is eliminated in the facility.
16. "Concentrate roaster" means any facility in which a copper sulfide ore concentrate is heated in the presence of air to eliminate ~~five percent~~ 5% or more of the sulfur contained in the charge.
17. "Condensate stripper system" means a column, and associated condensers, used to strip, with air or steam, TRS compounds from condensate streams from various processes within a kraft pulp mill.
18. "Control device" means the air pollution control equipment used to remove particulate matter or gases generated by a process source from the effluent gas stream.
19. "Converter" means any vessel to which copper matte is charged and oxidized to copper.
20. "Electric generating plant" means all electric generating units located at a stationary source.
21. "Electric generating unit" means:
  - a. A stationary, coal-fired boiler or stationary coal-fired combustion turbine, other than a boiler or turbine that qualifies as a cogeneration unit, serving at any time since the start-up of a unit's combustion chamber a generator with nameplate capacity of more than 25 megawatts electric producing electricity for sale. If a unit qualifies as a cogeneration unit during the 12-month period starting the date the unit first produces electricity but subsequently no longer qualifies as a cogeneration unit, the unit shall be an electric generating unit on the day which the unit no longer qualifies as a cogeneration unit.
  - b. A cogeneration unit serving at any time a generator with nameplate capacity of more than 25 megawatts and supplying in any calendar year more than one-third of the unit's potential electric output capacity or 219,000 megawatt-hours, whichever is greater, to any utility power distribution system for sale.
22. "Existing electric generating plant" means all electric generating units located at a stationary source during a control

period other than units that have not been allocated allowances to emit mercury pursuant to 40 CFR 60.4142(b) for that control period.

23. “Existing source” means any source which does not have an applicable new source performance standard under Article 9 of this Chapter.
- 23-24. “Facility” means an identifiable piece of stationary process equipment along with all associated air pollution equipment.
- 24-25. “Fugitive dust” means fugitive emissions of particulate matter.
- 25-26. “High sulfur oil” means fuel oil containing 0.90% or more by weight of sulfur.
- 26-27. “Incremental best available control technology” means an emission limitation based on the maximum degree of additional reductions, if any, in mercury beyond those achieved by existing controls installed under R18-2-724(F), taking into account incremental energy, environmental, and economic impacts, market prices of mercury allowances, balance of plant impacts, and other incremental costs, determined by the Director to be achievable and to be compatible with existing control technology installed at the electric generating unit. Incremental best available control technology shall be determined on a case-by-case basis and shall not be more stringent than the limits in R18-2-734(B).
- 27-28. “Inlet mercury” means the average concentration of mercury in the coal burned at an electric generating unit, as determined by ASTM methods, EPA-approved methods or alternative methods approved by the Director.
- 28-29. “Lime kiln” means a unit used to calcinate lime rock or kraft pulp mill lime mud, which consists primarily of calcium carbonate, into quicklime, which is calcium oxide.
- 29-30. “Low sulfur oil” means fuel oil containing less than 0.90% by weight of sulfur.
- 30-31. “Matte” means a metallic sulfide made by smelting copper sulfide ore concentrate or the roasted product of copper sulfide ores.
- 31-32. “Mercury” means mercury or mercury compounds in either a gaseous or particulate form.
- 32-33. “Miscellaneous metal parts and products” for purposes of industrial coating include all of the following:
- a. Large farm machinery, such as harvesting, fertilizing and planting machines, tractors, and combines;
  - b. Small farm machinery, such as lawn and garden tractors, lawn mowers, and rototillers;
  - c. Small appliances, such as fans, mixers, blenders, crock pots, dehumidifiers, and vacuum cleaners;
  - d. Commercial machinery, such as office equipment, computers and auxiliary equipment, typewriters, calculators, and vending machines;
  - e. Industrial machinery, such as pumps, compressors, conveyor components, fans, blowers, and transformers;
  - f. Fabricated metal products, such as metal-covered doors and frames;
  - g. Any other industrial category which coats metal parts or products under the Code in the “Standard Industrial Classification Manual, 1987” of Major Group 33 (primary metal industries), Major Group 34 (fabricated metal products), Major Group 35 (non-electric machinery), Major Group 36 (electrical machinery), Major Group 37 (transportation equipment), Major Group 38 (miscellaneous instruments), and Major Group 39 (miscellaneous manufacturing industries), except all of the following:
    - i. Automobiles and light-duty trucks;
    - ii. Metal cans;
    - iii. Flat metal sheets and strips in the form of rolls or coils;
    - iv. Magnet wire for use in electrical machinery;
    - v. Metal furniture;
    - vi. Large appliances;
    - vii. Exterior of airplanes;
    - viii. Automobile refinishing;
    - ix. Customized top coating of automobiles and trucks, if production is less than 35 vehicles per day;
    - x. Exterior of marine vessels.
- 33-34. “Multiple-effect evaporator system” means the multiple-effect evaporators and associated condenser and hotwell used to concentrate the spent cooking liquid that is separated from the pulp.
- 34-35. “Nameplate capacity” means, starting from the initial installation of a generator, the maximum electrical generating output (in megawatts) that an electric generating unit is capable of producing on a steady-state basis during continuous operation as specified by the manufacturer.
- 35-36. “Neutral sulfite semichemical pulping” means any operation in which pulp is produced from wood by cooking or digesting wood chips in a solution of sodium sulfite and sodium bicarbonate, followed by mechanical defibrating or grinding.
- 36-37. “Petroleum liquids” means petroleum, condensate, and any finished or intermediate products manufactured in a petroleum refinery but does not mean Number 2 through Number 6 fuel oils as specified in ASTM D-396-90a (Specification for Fuel Oils), gas turbine fuel oils Numbers 2-GT through 4-GT as specified in ASTM D-2880-90a (Specification for Gas Turbine Fuel Oils), or diesel fuel oils Numbers 2-D and 4-D as specified in ASTM D-975-90 (Specification for Diesel Fuel Oils).
- 37-38. “Potential electric output capacity” means ~~33 percent~~ 33% of a unit’s maximum design heat input, divided by 3,413

- Btu per kilowatt-hour, divided by 1,000 kilowatt-hours/per megawatt-hour, and multiplied by 8,760 hours per year.
- ~~38-39.~~ "Process source" means the last operation or process which produces an air contaminant resulting from either:
- The separation of the air contaminants from the process material, or
  - The conversion of constituents of the process materials into air contaminants which is not an air pollution abatement operation.
- ~~39-40.~~ "Process weight" means the total weight of all materials introduced into a process source, including fuels, where these contribute to pollution generated by the process.
- ~~40-41.~~ "Process weight rate" means a rate established pursuant to R18-2-702(E).
- ~~41-42.~~ "Recovery furnace" means the unit, including the direct-contact evaporator for a conventional furnace, used for burning black liquor to recover chemicals consisting primarily of sodium carbonate and sodium sulfide.
- ~~42-43.~~ "Reid vapor pressure" means the absolute vapor pressure of volatile crude oil and volatile non-viscous petroleum liquids, except liquified petroleum gases, as determined by ASTM D-323-90 (Test Method for Vapor Pressure of Petroleum Products) (Reid Method).
- ~~43-44.~~ "Reverbatory smelting furnace" means any vessel in which the smelting of copper sulfide ore concentrates or calcines is performed and in which the heat necessary for smelting is provided primarily by combustion of a fossil fuel.
- ~~44-45.~~ "Rotary lime kiln" means a unit with an included rotary drum which is used to produce a lime product from limestone by calcination.
- ~~45-46.~~ "Slag" means fused and vitrified matter separated during the reduction of a metal from its ore.
- ~~46-47.~~ "Smelt dissolving tank" means a vessel used for dissolving the smelt collected from the kraft mill recovery furnace.
- ~~47-48.~~ "Smelter feed" means all materials utilized in the operation of a copper smelter, including metals or concentrates, fuels and chemical reagents, calculated as the aggregate sulfur content of all fuels and other feed materials whose products of combustion and gaseous by-products are emitted to the atmosphere.
- ~~48-49.~~ "Smelting" means processing techniques for the smelting of a copper sulfide ore concentrate or calcine charge leading to the formation of separate layers of molten slag, molten copper, or copper matte.
- ~~49-50.~~ "Smelting furnace" means any vessel in which the smelting of copper sulfide ore concentrates or calcines is performed and in which the heat necessary for smelting is provided by an electric current, rapid oxidation of a portion of the sulfur contained in the concentrate as it passes through an oxidizing atmosphere, or the combustion of a fossil fuel.
- ~~50-51.~~ "Standard conditions" means a temperature of 293K (68°F or 20°C) and a pressure of 101.3 kilopascals (29.92 in. Hg or 1013.25 mb).
- ~~51-52.~~ "Supplementary control system" (SCS) means a system by which sulfur dioxide emissions are curtailed during periods when meteorological conditions conducive to ground-level concentrations in excess of ambient air quality standards for sulfur dioxide either exist or are anticipated.
- ~~52-53.~~ "Topping-cycle cogeneration unit" means a cogeneration unit in which the energy input to the unit is first used to produce useful power, including electricity, and at least some of the reject heat from the electricity production is then used to provide useful thermal energy.
- ~~53-54.~~ "Total energy output" means, with regard to a cogeneration unit, the sum of useful power and useful thermal energy produced by the cogeneration unit.
- ~~54-55.~~ "Vapor pressure" means the pressure exerted by the gaseous form of a substance in equilibrium with its liquid or solid form.

**R18-2-719. Standards of Performance for Existing Stationary Rotating Machinery**

- The provisions of this Section are applicable to the following affected facilities: all stationary gas turbines, oil-fired turbines, or internal combustion engines. This Section also applies to an installation operated for the purpose of producing electric or mechanical power with a resulting discharge of sulfur dioxide in the installation's effluent gases.
- For purposes of this Section, the heat input shall be the aggregate heat content of all fuels whose products of combustion pass through a stack or other outlet. Compliance tests shall be conducted during operation at the normal rated capacity of each unit. The total heat input of all operating fuel-burning units on a plant or premises shall be used for determining the maximum allowable amount of particulate matter which may be emitted.
- No person shall cause, allow or permit the emission of particulate matter, caused by combustion of fuel, from any stationary rotating machinery in excess of the amounts calculated by one of the following equations:
  - For equipment having a heat input rate of 4200 million Btu per hour or less, the maximum allowable emissions shall be determined by the following equation:
$$E = 1.02Q^{0.769}$$
where:
    - E = the maximum allowable particulate emissions rate in pounds-mass per hour.
    - Q = the heat input in million Btu per hour.
  - For equipment having a heat input rate greater than 4200 million Btu/hr., the maximum allowable emissions shall be

determined by the following equation:

$$E = 17.0Q^{0.432}$$

where "E" and "Q" have the same meaning as in subsection (C)(1).

- D. For reference purposes only, the two equations in subsection (C) are plotted in Appendix 11, Figure 1. The emission values obtained from the graph are approximately correct for the heat input rates shown. However, the actual values shall be calculated from the applicable equations and rounded off to two decimal places.
- E. No person shall cause, allow or permit to be emitted into the atmosphere from any stationary rotating machinery, smoke for any period greater than 10 consecutive seconds which exceeds 40% opacity. Visible emissions when starting cold equipment shall be exempt from this requirement for the first 10 minutes.
- F. When low sulfur oil is ~~fires~~ fired, stationary rotating machinery installations shall burn fuel which limits the emission of sulfur dioxide to 1.0 pound per million Btu heat input.
- G. When high sulfur oil is fired, stationary rotating machinery installations shall not emit more than 2.2 pounds of sulfur dioxide per million Btu heat input.
- H. Any permit issued for the operation of an existing source, or any renewal or modification of such a permit, shall include a condition prohibiting the use of high sulfur oil by the permittee. This condition may not be included in the permit if the applicant demonstrates to the satisfaction of the Director both that sufficient quantities of low sulfur oil are not available for use by the source and that it has adequate facilities and contingency plans to ensure that the sulfur dioxide ambient air quality standards set forth in R18-2-202 will not be violated.
  - 1. The terms of the permit may authorize the use of high sulfur oil under such conditions as are justified.
  - 2. In cases where the permittee is authorized to use high sulfur oil, it shall submit to the Department monthly reports detailing its efforts to obtain low sulfur oil.
  - 3. When the conditions justifying the use of high sulfur oil no longer exist, the permit shall be modified accordingly.
  - 4. Nothing in this Section shall be construed as allowing the use of a supplementary control system or other form of dispersion technology.
- I. The owner or operator of any stationary rotating machinery subject to the provisions of this Section shall record daily the sulfur content and lower heating value of the fuel being fired in the machine.
- J. The owner or operator of any stationary rotating machinery subject to the provisions of this Section shall report to the Director any daily period during which the sulfur content of the fuel being fired in the machine exceeds 0.8%.
- K. The test methods and procedures required by this Section are as follows:
  - 1. To determine compliance with the standards prescribed in subsections (C) through (H), the following reference methods shall be used:
    - a. Reference Method 20 in 40 CFR 60, Appendix A for the concentration of sulfur dioxide and oxygen.
    - b. ASTM Method D-129-91 (Test Method for Sulfur in Petroleum Products) (General Bomb Method) for the sulfur content of liquid fuels.
    - c. ASTM Method D-1072-90 (Test Method for Total Sulfur in Fuel Gases) for the sulfur content of gaseous fuels.
  - 2. To determine compliance with the standards prescribed in subsection (J), the following reference methods ~~in the Arizona Testing Manual~~ shall be used:
    - a. ASTM Method D-129-91 (Test Method for Sulfur in Petroleum Products) (General Bomb Method) for the sulfur content of liquid fuels.
    - b. ASTM Method D-1072-90 (Test Method for Total Sulfur in Fuel Gases) for the sulfur content of gaseous fuels.